The National Future Farmer

Owned and Published by the Future Farmers of America

SPRING 1954

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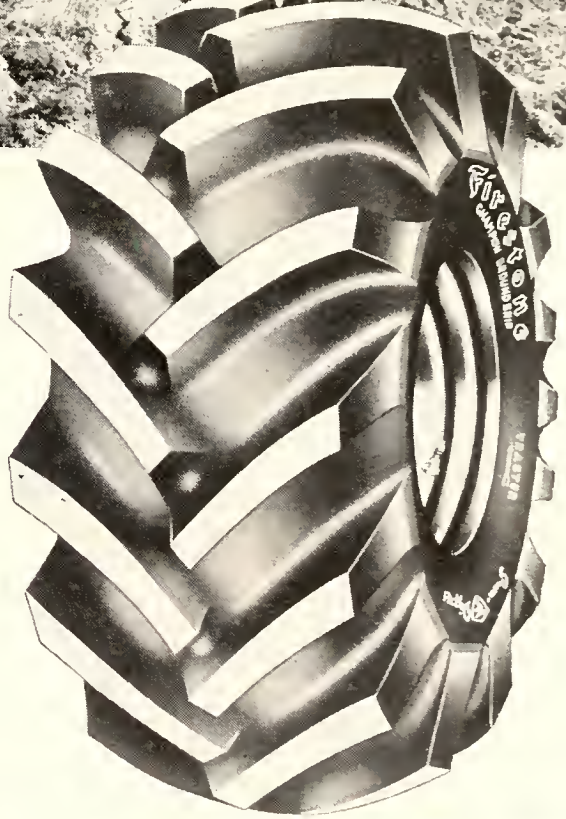
This tire testing unit is measuring the pulling power of the tires in tough plowing. Repeated plowing tests have proven that no other tractor tire can match the Firestone Champion for pulling and cleaning — on any job — in any soil condition.



TRACTOR tires may appear to be the same but it's work done behind the drawbar that makes the difference.

Tests prove that on any job Firestone Champions give you all the horsepower your tractor can deliver — extra drawbar horsepower that saves time and fuel.

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For all around farm truck service, choose the rugged, low-priced Champion Heavy Duty. And for your car, choose the De Luxe Champion — the tire that is safety proved on the speedway for your protection on the highway.

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Enjoy the Voice of Firestone on radio or television every Monday evening over NBC

The National
Future Farmer
Owned and Published by the Future Farmers of America

SPRING 1954 Vol. 2, No. 3

Photo by Bob Taylor

SPRING is the season when farmers and Future Farmers enjoy the thrill of seeing rich soil turning over as the heavy plow makes its way back and forth across the field. To those who live near the soil, spring plowing marks the beginning of a new year of plans and hopes, a new start toward bigger and better products for the nation's table.

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THE NATIONAL FUTURE FARMER is published quarterly by the Future Farmers of America, Inc., at 810 Rhode Island Avenue, N. E., Washington, D. C. Entered as second-class matter at the post office at Washington, D. C. Acceptance for mailing at special rate of postage provided for in section 34.40(e).
Subscription price is 25c per year, five years for $1.00 in U. S. and possessions. Single copies, 10c in U. S.
CHANGE OF ADDRESS: Send both old and new addresses to Editorial Offices, THE NATIONAL FUTURE FARMER, Box 1180, Alexandria, Virginia.

Is there such a thing as a "wise" gambler?

This is the dial on a NEW IDEA Fertilizer Spreader. It certainly isn't meant as a gambling device — but setting it by guesswork turns it into a mighty fickle wheel of fortune.

This machine is guaranteed* to apply exactly the number of pounds of fertilizer or seed you set the dial for. Everything depends on you, the one who sets the dial. If you *know* the kind and amount of fertilizer your soil needs, the odds go up in your favor several hundred percent. And because the NEW IDEA Fertilizer Spreader is extremely accurate, you keep the odds on your side.

As a farmer, you are forced to be a gambler, whether you like the idea or not. Drouth, flood, hail, price breaks — any number of things can cut your odds on making a good profit. But with *knowledge* on your side, plus reliable tools that let you use your knowledge correctly, you'll be able to weight the gamble in your favor. A good farmer is a "wise" gambler.

* "The NEW IDEA Fertilizer Spreader will spread ANY fertilizer in ANY condition in ANY amount (10 to 5000 lbs. per acre) ... uniformly and accurately, without clogging, or money back."

NEW IDEA

FARM EQUIPMENT COMPANY

Dept. 1161, Coldwater, Ohio

AVCO Division Distributing Corporation

New Sentinel Plaque

First time offered to FFA Chapters, a new, official Sentinel Plaque station marker! Every chapter should have one of these handsome Burwood markers. Order yours today direct from the Future Farmers Supply Service, Box 1180, Alexandria, Virginia, for only

$1.75

Many Farm Youth Groups Use the NEW Book on

HOW TO CONDUCT BUSINESS MEETINGS

"Practical Parliamentary Procedure" by *Rose Marie Cruzan*, gives terms, and necessary steps to obtain action, tells how to obtain the floor, gives pointers for members and officers, rules for motions, amendments, nominations and elections. New enlarged up-to-date book covers every phase of parliamentary law . . . based upon officially accepted Rules of Order. $2.50.

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A Fellow Told Me...

There are about 72,000 seniors in the FFA this year. That means that a lot of fellows are facing the big question: College or Not? Some of us were talking about it the other day and, brother, did we have a lot of different opinions! Joe, whose dairy farm is already a big business around here, is sure that college isn't for him; claims he's needed on the farm full-time right now. But Bill was just as sure that he wants to go to college in the fall. He wants to be an agricultural engineer and college is a must in his planning. Most of the other guys were still pretty undecided about entering the halls of higher learning.

Our vo-ag teacher came by while we were hashing it over and he had a couple of interesting figures to throw in. He said a recent survey showed that a high school graduate could be expected to earn during his lifetime $33,000 more than a grammar school graduate. And, catch this one, the expected lifetime earnings of the college graduate are $72,000 more than those of the high school graduate!

Money isn't everything (it says here) and also statistics like that are no guarantee. But they do make you stop and think. Guess it boils down to this: Every Future Farmer has to make up his own mind about college in terms of his background and his plans for the future. Let's give it some serious thought, though.

Ray Brewer, Indiana's FFA president, has a good idea. Ray thinks that Future Farmers had better begin to find out more about national farm problems. After all, fellows, what is done today about such current farm problems as price supports is going to have a much bigger effect on us in a few years than most of us realize. Ray is right; let's find out more about these things *now*.

Along the same line, it's a good idea for each of you to keep your eyes on what your congressman is doing in Washington. He needs and wants to know how you feel about the issues he's voting on, so let him know. When you write, be specific; tell him what you're for and against and why.

You should have seen the magazine staff opening the hundreds and hundreds of envelopes addressed to the Cartoon Contest. You fellows sure sent in plenty of swell gags.

And the Chapter Contest on fund-raising activities brought in some of the most interesting mail the magazine ever received. It was a hard job picking the winners. In the Fall issue you'll hear about some of the swell money-making ideas that turned up in the contest.

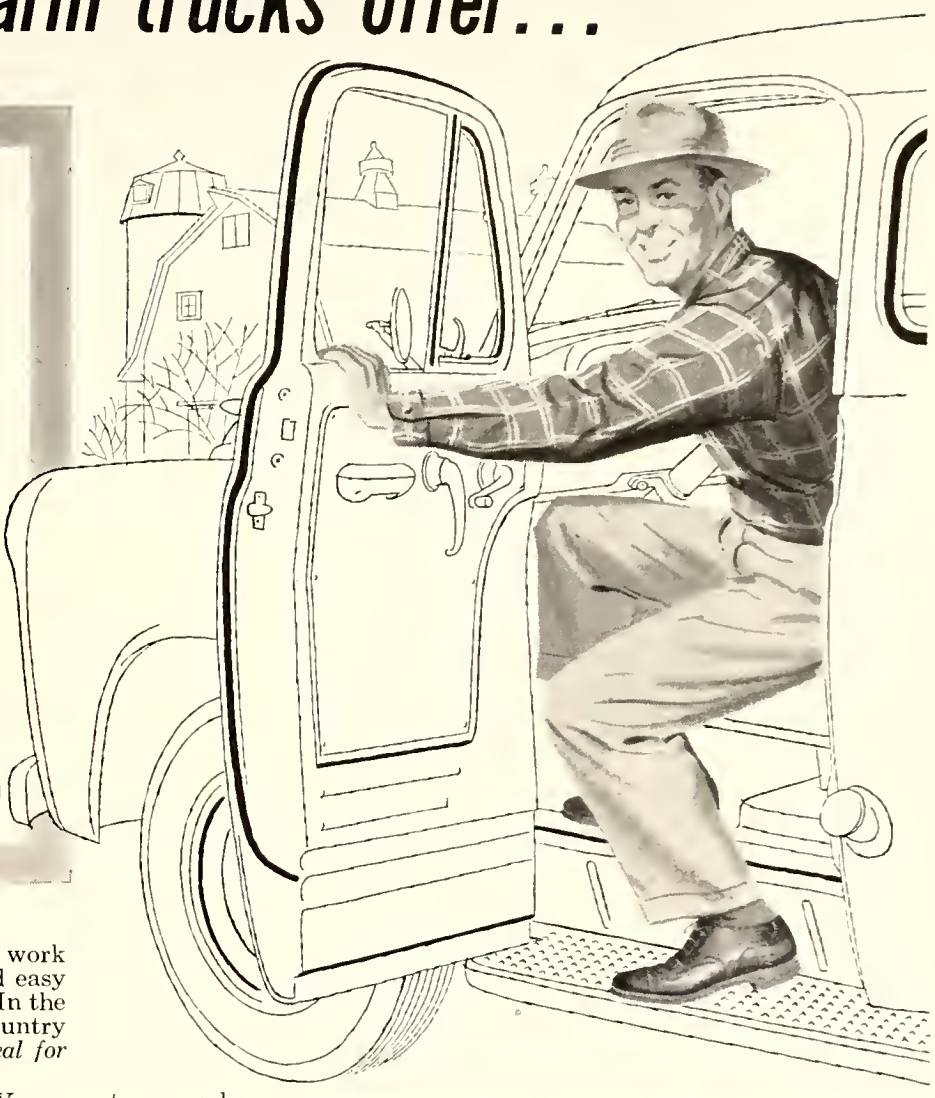
And speaking of contests, don't miss the one announced in this issue. It's for all you guys who have livestock or poultry projects. Here's your chance to win some terrific prizes—a gun, a fishing tackle outfit, and a camera kit. Get busy 'cause the prizes are ready and waiting!

See you next issue.

Hank

New Dodge farm trucks offer...

A BETTER DEAL FOR THE MAN AT THE WHEEL



To get all the hard, heavy work around your farm done fast and easy —get a new Dodge farm truck! In the fields, in town or on back-country roads, Dodge means *a better deal for the man at the wheel.*

Better deal in handling ease. You can turn, park, maneuver with ease on the narrowest farm lanes, the most cramped farmyards. New steering system helps make Dodge the sharpest turning farm truck of all.

Better deal in power. Now Dodge offers great new V-8's as well as thrifty 6's—from 100 to 172 h.p. You get the *right* engine to move farm crops and supplies with top power and economy.

Better deal in loading. New knee-high loading level on farm pick-ups means less "lift" per load . . . saves plenty of time and work when you load and unload.

Feature after feature, the story is the same. When it comes to farm trucks, you can't buy better than Dodge! And remember . . . they're *still* priced with the lowest. For the best trucks, see your friendly Dodge dealer; he's a good man to know! 5 minutes behind the wheel will *prove* Dodge a better deal!

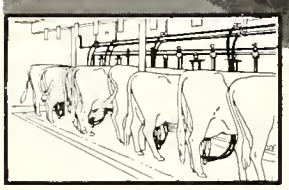
THERE'S A BETTER DEAL FOR THE WOMAN AT THE WHEEL, TOO!

Yes, women in rural communities like new Dodge trucks, too, because only Dodge offers so much comfort, convenience, modern beauty! Dodge gives soft, easy-chair seats, picture-window visibility, low running boards for easy entrance, the smooth no-shift driving of Truck-o-matic. Take a ride in a new Dodge farm truck and judge for yourself.

DODGE "Job-Rated" TRUCKS

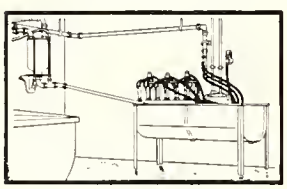
See "Break The Bank" with Bert Parks on TV (ABC, Sundays).
Hear "The Roy Rogers Show" on radio (NBC, Thursdays).
See "Make Room For Daddy" with Danny Thomas on TV (ABC, Tuesdays).
Enter the Dodge 40th Anniversary All America Contest. See your dealer.

The De Laval Combine Milker Will Help You Cut Costs...



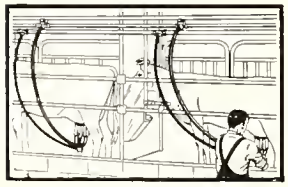
BARN TYPE

Installed along the stanchions, the De Laval Combine milks and conveys the milk to the milk house, saving all carrying and pouring.



MECHANIZED "IN-PLACE" CLEANING

The De Laval Combine can be quickly, easily and thoroughly washed and sanitized by the De Laval "In-Place" Vacuum Cleaning Method.



MILKING ROOM TYPE

From cow to cans or refrigerated farm tank, the De Laval Combine installed in a separate milking room does the entire job.

To Earn More in '54

Every dollar that you shave off your operating costs in '54 will mean extra profit to you... and with the De Laval Combine Milker you can do just that!

De Laval Combine Milkers, installed either in the dairy barn along the stanchions or in a separate milking room, provide *completely* mechanized milking. They milk fast and clean, offering all the advantages of the famous De Laval Magnetic "Better Milking." The milk is conveyed by vacuum through sanitary glass or stainless steel pipe directly into milk cans or refrigerated farm tank. On the way, it is automatically filtered and each cow's milk can be individually weighed, if desired, for recording.

After milking, the entire system can be quickly and thoroughly washed and sterilized "in-place" from the milking room! No more time-consuming "wash-up," thanks to De Laval engineering which has now completely mechanized this part of the job, too!

For pleasanter, more profitable one-man dairy operation throughout 1954, and the years to come, see your local De Laval Dealer or mail coupon today.

DE LAVAL COMBINE MILKERS

FIRST SINCE 1928

THE DE LAVAL SEPARATOR CO., DEPT. C-46
POUGHKEEPSIE, N. Y.
427 Randolph St., Chicago 6, Ill. • 61 Beale St., San Francisco 5, Cal.

Please send me interesting new printed matter on De Laval COMBINE MILKERS

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(Indicate type of installation you prefer)

NAME_____

TOWN_____ R.F.D.____ STATE____

DE LAVAL

Reader Roundup

Browning, Montana

This is a belated letter of thanks for the fine way that the magazine has treated our chapter.

I am sure that any chapter, as well as the parents of the members, gets quite a lift from seeing their chapter in print. Please let me assure you that no group, be it chapter members, other students in the school, or parents, can possibly get the "charge" out of such an experience that a group of Indians do.

We had several copies of the last [Fall] issue, and they have literally been worn out by being passed from hand to hand. We had a tough time rescuing a copy to clip for our chapter scrapbook. Some of the parents of the full-blood dancers do not read English very well, if at all, but they were certainly able to enjoy the illustrations.

R. W. Harris

For you new subscribers, an article on the Browning Chapter, entitled "The Last Dance," appeared in the Fall, '53, issue.—ED

Lafayette, Tennessee

I enjoy your magazine to the fullest extent. It lets one Future Farmer know what his neighbors are doing. I am a new subscriber—this is my second edition of this wonderful magazine.

Hollis Gammon

Santa Rosa, New Mexico

I think that *The National FUTURE FARMER* is a very interesting and educational magazine. It gives FFA boys a chance to read about what other FFA boys are doing. I wish I could see more articles about New Mexico in this magazine.

Alfredo Flores

We agree, Alfredo. You'll find a New Mexico beef cattle story and a picture in Photo Roundup this issue.—ED

Dawson, Minnesota

All members agree you had a splendid issue. Everyone liked the Edwin Miller story.

Arthur Dahlberg

Dexter, Missouri

I like this magazine because of the important ideals it has in it about farming. I am the president of the Bernie Chapter, which has only been organized one year. Most of the members are taking the Future Farmer magazine and enjoy it very much.

Glen Wiggs

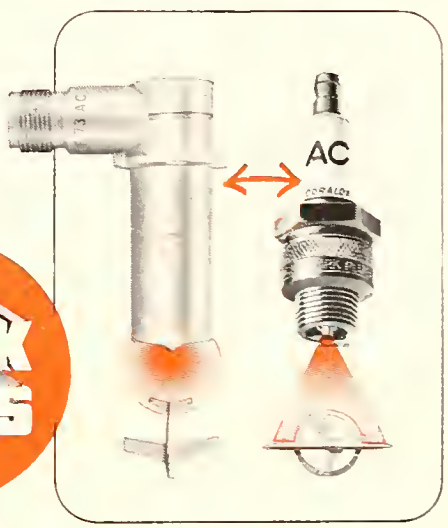
Jet Engine Plane and "Rocket" Engine OLDSMOBILE

ACs with Patented *CORALOX* Insulator are Built for Both!

The *CORALOX* Insulator of the AC starter-plug used in jet planes must withstand terrific temperatures. This fact is important to car owners because the insulator of the AC Spark Plugs used to fire automobile engines is of the same composition as that used in the jet plug.

CORALOX, no matter how high the engine temperature, won't let the current "short" and cause your engine to misfire. And the great strength of *CORALOX* permits the use of longer, thinner insulator tips which heat up quickly to burn away oil and wet carbon deposits. That's why a new set of ACs, with insulators of the same patented *CORALOX* used in AC jet engine plugs, can step up power and save fuel for you in any farm engine—car, truck or tractor.

AC SPARK PLUGS

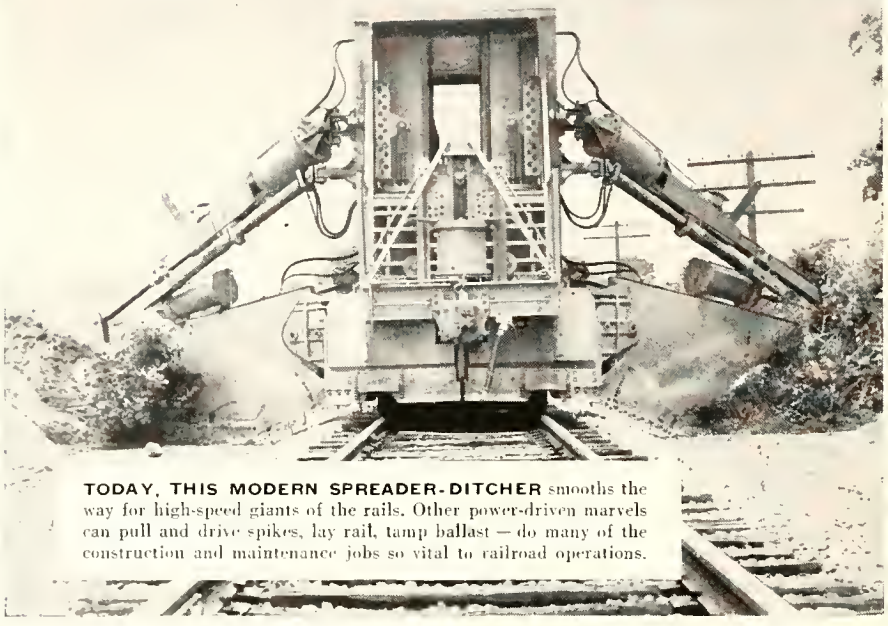


ORIGINAL EQUIPMENT ON NEARLY AS MANY NEW CARS AND TRUCKS AS ALL OTHER MAKES COMBINED

AC SPARK PLUG DIVISION GM GENERAL MOTORS GENERAL MOTORS CORPORATION

The Railroads opened the way for America's growth . . .

THESE TINY MULE-DRAWN SCRAPERS were photographed long ago as they smoothed a path for a railroad line across the plains. With such primitive equipment, railroad pioneers conquered the vast distances of the continent — and America's growth began.



TODAY, THIS MODERN SPREADER-DITCHER smooths the way for high-speed giants of the rails. Other power-driven marvels can pull and drive spikes, lay rail, tamp ballast — do many of the construction and maintenance jobs so vital to railroad operations.

AND THEY'RE STILL BLAZING TRAILS FOR PROGRESS!

The America in which we live has grown and prospered along paths pioneered by its railroads — and pioneering still goes on. Just since the end of World War II, the railroads have spent more than $9,000,000,000 on improvements. And they are going ahead with their improvement program.

As a taxpayer, you will be glad to know that the money to pay for the new and better tracks, terminals, signals and all the rest — as well as new cars and locomotives — is raised by the railroads. None of it comes from your taxes.

It's money well spent, too, for it helps the railroads to serve you better in doing their big job of carrying more tons of freight, more miles than *all* other forms of transportation combined — and doing it at a lower average charge than any other form of general transportation.

ASSOCIATION OF AMERICAN RAILROADS

WASHINGTON 6, D. C.

You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.

Reader Roundup

Sutton, Nebraska

I received my issue of *The National FUTURE FARMER* a few days ago and appreciate it very much. My biggest wish is that this magazine could be published every month.

I enjoyed your articles about television and radio broadcasting because the Sutton Chapter of FFA is planning to put on a television show.

I am 14 years old, a sophomore in high school, and the junior president of our chapter. I am very fond of the FFA.

Wilbert Roemmich

Glad we could be of some assistance, Wilbert—that's part of our job. Incidentally, if any of you fellows have a particular type of article you'd like to see in print, tell us about it. We're eager to get new ideas.—ED

Princeton, New Jersey

We enjoy your magazine very much. We like your stories about chapter projects and activities.

Lenny Andrews

Norwalk, Wisconsin

My son's *National FUTURE FARMER* came yesterday. I picked it up to scan through it, and sat until I'd almost read it from cover to cover. I just want to tell you that I'm really thankful that there is such a fine magazine and back of it, or perhaps ahead of it, is the FFA.

M. Chandler

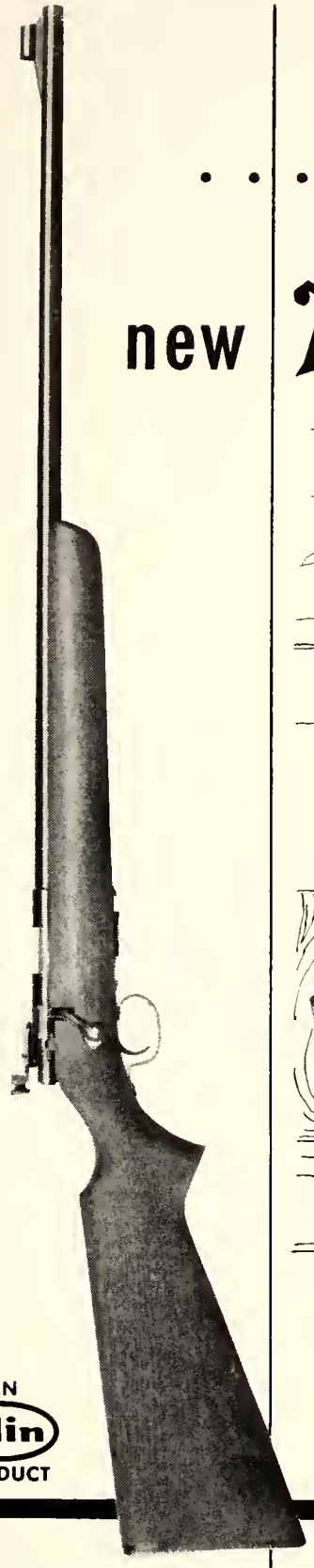
GOING SOMEWHERE?

. . . Wherever you move . . . to the North Pole or the next town . . . we'll follow you.

Be sure to send your NAME, with FULL NEW ADDRESS and OLD, to The National Future Farmer, Box 1180, Alexandria, Virginia.

. . . there's no thrill like a new WINCHESTER 22

TRADE-MARK



Just imagine the thrill of opening a box and lifting out *your* new Winchester! From that moment on, your fun starts. There's hunting, there's target shooting, there's plinking, there's, well . . . just get your *own* Winchester and find out about all the fun you can have. But remember this . . . whatever kind of shooting you prefer, you're going to do much better with a Winchester. Make your selection from the complete line of TEN Winchester 22's!

AN Olin PRODUCT

The WINCHESTER Model 69

- Rugged bolt action
- Five shot clip magazine
- 25" tapered barrel
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- Proof tested for safety

Price—$28.65*

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To get the most out of your 22 rifle... put Winchester Super Speed 22's in it.

Winchester Super Speed 22's, either solid or hollow point, leave the muzzle at a speed that's faster than sound. What's more, they keep their velocity so well that you'll make longer and better shots than you've ever made before. Load your new Winchester with Super Speed 22's. That's a perfect combination for real shooting fun.

All Winchester priming is rust-proof, non-fouling and non-corrosive.

Solid Point For Penetration

Hollow Point
For Mushrooming Effect

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Behind the Blue Ribbon

By Glenwood L. Creech

Carlisle Besuden shows "Sweetheart," 80-pound Southdown lamb who was judged grand champion in the junior feeding contest at the 1953 International Livestock Exposition.

SO YOU THINK you would like to show your sheep? "Well, you really have to work to produce a winner," says Carlisle Besuden, 18-year-old Future Farmer from Winchester, Kentucky.

Carlisle knows. Three of his lambs were grand champions in the junior feeding contest at the International Livestock Exposition; others won top placings in local and state shows.

How does he do it? He keeps thinking about blue ribbons and he works hard to make a day at the show one to remember.

In preparing for a show Carlisle first studies the exhibition requirements of the fair or show he wishes to enter. After learning the rules, he selects the lambs to prepare for the show.

"Since all animals don't respond equally well to feeding, I start with more lambs than I intend to show," he says. As soon as a lamb shows signs of developing a little better than the others, he separates it from the flock and puts it with those he is preparing for the show. "Don't choose a lamb that has a visible defect," he warns.

Carlisle "pushes" his lambs, starting at their birth. He feeds his ewes liberally so they will produce plenty of milk for the lambs. He knows that milk is the most important feed for lambs. As soon as the lambs are large enough to eat, usually about two-weeks old, he starts feeding them "all the grain they will clean up" in a creep. Then when good pasture comes, he takes them off grain and doesn't start feeding grain again until about 10 weeks before the show. He regulates the grain so lambs will have proper finish at show time.

Keeping lambs healthy and free from parasites is important. To control worms Carlisle says, "Watch the color of the lamb's skin; when it starts getting pale, it's time to drench." He drenches all his lambs at weaning time with a bluestone-nicotine solution and in the fall with phenothiazine. And he keeps a dry mixture of phenothiazine and salt before his lambs at all times. To kill external parasites, he dips all lambs that show signs of tick or lice infestation.

Although Carlisle says that no amount of blocking and trimming can make up for poor feeding and management, he believes that failure here means failure in the show ring. It takes a lot of skill and patience to prepare a fleece, but most boys can learn to do it if they will really try. The important thing is to make the sheep as attractive as possible. Carlisle's rule is: "trim to emphasize strong points and to cover up weaknesses."

About a month before the show, Carlisle starts working on the fleece. He puts the lamb in a tank filled with water up to about the middle of the lamb's body. When the fleece is soaked, he removes the lamb and rubs powdered borax into the fleece. Then he rinses the animal with clear water and puts it in a well-bedded stall to dry.

About three weeks before the show, Carlisle puts the lamb on a homemade trimming stand and starts the job of

"rough blocking." Using a stiff brush and a pail of water he moistens the fleece. The brushing and moistening straightens out the fibers and makes for a smoother job with the shears. Then he rakes the fleece with a circular-type curry comb. After this, he cards the fleece. Carding pulls out the loose ends and makes the fleece ready for trimming. Using the shears he cuts off the loose ends of the fleece smoothly and evenly.

He trims the sheep to look as square as possible: yet he keeps all corners slightly rounded. The back is flattened down to make the top line level and to make the animal appear as wide as possible. He trims the back closely enough to make the animal firm to the touch when handled over the back and loin. If the shoulders are too broad, he cuts the fleece a little on each side.

Carlisle shows how to get the sheep into position for trimming its feet.

To develop straight sidelines he removes some of the fleece from the center of each side. He cuts the dock square to give a broader appearance to the hind quarters. To give a wide appearance between the legs, he cuts excess wool from the inside of the legs. He clips off excess wool wherever necessary to make the legs seem straight.

He makes the sheep look low on the ground by leaving as much wool on its stomach as he can. Most of the wool is left on the breast to give style and make the front end look wide and deep. He trims the throat closely. In fat classes he trims the head so it will have a refined appearance; in breeding classes he trims the head very little.

After he trims the fleece, he puts a canvas blanket on the lamb to keep its coat clean and compact.

Two weeks before the show Carlisle trims off all excess hoof from the underside of his lamb's feet. This is to prevent crookedness in the set of its feet and legs. Carlisle uses a sharp pocket knife for the task.

The brushing, carding, and trimming process is repeated about a week before the show. This trimming is more complete than the first, with careful attention given to the flank, rump, forerib, and thigh, areas which frequently lack in development.

The third trimming, which is given the day before the animals are taken to the show, is even more thorough. It consists of alternate brushing, carding, and trimming. Carlisle usually repeats the process several times until all body parts blend together. Although many showmen use oil or dressing on the fleece, Carlisle doesn't do it unless it is absolutely necessary.

After arriving at the show, before he unloads his sheep, he cleans the entire pen, sides too, so his sheep won't get soiled. Then he puts his lambs in the freshly-bedded pens, and waters and feeds them lightly. Then just before the show, he freshens up the fleece by going over each animal lightly with the brush, card, and shears.

Showing

When his class is called, Carlisle is always ready to lead his animal out. He dresses neatly for the show, and his lamb looks as attractive as he can make it. When he enters the ring, he stands his sheep squarely on its legs. Squatting to the left of the animal he grasps the wool lightly under the chin with his left hand, leaving his right hand free to use wherever needed. As the judge steps up to his sheep to handle it, Carlisle pushes against the brisket with his knee, causing the sheep to tense the muscles of its back and have a firmer touch. "I always watch the judge and the lamb, and I try to look calm and confident," he says. "But I don't always feel calm," he adds. His showing rule is: "be courteous and a good sport always."

It's thrilling to win, but showing is profitable even if you don't have the top animal. More is gained from a show than ribbons and premium money; showing sheep is the best possible way to learn how to be a good sheepman. And Carlisle Besuden is just that. He and his father are now recognized as Kentucky's most outstanding Southdown breeders. Follow Carlisle's program. You'll get your share of blue ribbons and learn to be a sheepman too!

Carlisle shows the equipment used in fitting and showing his sheep.

Carlisle gives the fleece a vigorous combing before beginning the carding.

After trimming, a blanket is put on the sheep to keep the fleece clean.

Trimming excess hoof is important to make the sheep stand correctly.

The Chapter Farm

By Emeron P. Dettmann
Newton, Iowa, Chapter Advisor

TURNING 92 ACRES of run-down soil into good, workable acres was a big challenge for the Newton, Iowa, Chapter . . . but they knew they could do it.

Six years ago Newton members had decided it was time to swing into action and lease some land for the Chapter's use. Each boy was doing a good job of applying soil-building techniques on his home farm, but the Chapter wanted a place where they could work out different and better methods for their farms and the community.

They leased a 40-acre tract of land and drew up a complete conservation plan to enrich and improve its soil. The plan and results of conservation projects at home were entered in a state conservation contest and won first prize for the Newton Chapter.

The prize was a year's use of a tractor with moldboard and disk plow plus a blade and scoop. The tractor and attachments were a great asset to the boys in working their chapter farm. In fact, business was so good that they were able to purchase the equipment with cash returns from the farm's operations and a donation by the Newton Chamber of Commerce.

Having the situation well in hand on their 40-acre tract, the Newton Chapter leased an additional 20 acres two years later.

During their tenancy on these farms, the Newton Future Farmers did much to turn the barren soil into profit-making acres. Washed out gullies were filled in and worn-out soil refreshed through grass waterways, crop rotation, and strip and contour plowing. The Chapter constructed a farm pond and terrace, layed fence, and finished building a corn crib.

In 1952 an even greater task was proposed to the Newton FFA. T. H. Ragsdale had a 92-acre farm that needed a lot of improvements, and he wanted the Chapter to handle the job on a 50-50 share-crop basis. Could they do it? There wasn't any hesitation.

First a complete conservation plan for the farm was worked out between the owner, the Chapter, and the Jasper County Soil Conservation Service. A land use map drawn up by SCS showed that about 20 acres could be put into cropland, ten acres turned into permanent hay, and the balance made into pasture. Two acres on which the owner had built a pond and planted grass and shrubs were set aside as a wildlife area.

The Chapter tackled the big job of pasture improvement with a ten-acres-a-year system. Each year they are plowing up ten acres of depleted bluegrass and planting it in corn. It is reseeded the following year with a pasture mixture of four pounds of birdsfoot trefoil and four pounds of orchard grass. Fertilizer applied to last year's pasture was 250 pounds of 4-16-0.

To give Newton townsfolk a chance to learn along with them, the Chapter conducts experimental plots in grass, legume, and oat varieties which the public is invited to inspect.

Improved soil, contour plowing, and grass waterways are already paying off in good farm crops. Last year, under a rotation system of corn, corn, meadow, meadow, the Chapter got a 95-bushel yield of corn, 20 bushels of Ajax oats to the acre, and a four-ton harvest per acre of alfalfa-Brome hay. One hundred pounds of 11-48-0 were applied to the corn as a starter fertilizer.

In the two years the Chapter has leased the farm, there has been plenty of hard, heavy work to do. But there is never a shortage of handy, willing helpers. Instructors have been very pleased at the interest the boys take in turning their classroom lessons into soil conservation practices on the farm.

Farm work is done during class periods, before and after school, and on Saturdays. Many of the important farm tasks must be done during the summer months. The Chapter handles this work by electing two managers for the farm and setting up committees for each of the tasks before school is over.

The two managers get together and decide the appropriate time for doing each job. Then they call in the committee chairman, who rounds up his members and takes care of the assignment.

A lot of preparation is necessary in the classroom and shop before the farm work can begin. Seed varieties must be mixed, treated, and inoculated. Sprays mixed. All farm machinery—a tractor, disc, fertilizer spreader, corn planter,

Pruning trees and shrubbery on the farm is good training and good fun.

plow, cultivator, small grain seeder, weed sprayer, and tillage implements—must be kept in top condition. And plans must be carefully worked out for tilling the land and harvesting and selling the crops.

To other chapters thinking of operating a chapter farm, the Newton Future Farmers have a few suggestions to offer. First, own your farm machinery, and, second, get the complete chapter to take part in farming operations.

Newton members have found out, through experience, that it's a sound idea to own at least part of your equipment or have definite financial arrangements for getting the necessary pieces of machinery before you begin to farm.

And, to make sure that the work will get done, be sure that every chapter member can pitch in to help. Don't forget that a chapter farm is a classroom, too, and the work done there will not only mean good grades but good farmers in the years ahead. ◆◆◆

Storing a bumper crop of corn is one of the many jobs on the chapter farm.

NOW! 5 MM HARVESTORS to give you these money-making advantages!

MINNEAPOLIS-MOLINE MM MODERN MACHINERY

One man and the MM "69" make a threshing crew that's hard to beat. Light weight, light draft, straight-through design, and full length separation mean a fast, clean, low cost job in every crop.

'69'

SELF-PROPELLED

Now with POWERflow steering, and POWERflow drive, this mighty MM "S" Self-Propelled Harvestor offers a host of exclusive new MM advantages. Available in 12, 13-, and 14-foot sizes.

UNI-HARVESTOR

Powered and propelled by the MM Uni-Tractor, this MM Uni-Harvestor combines your crops at a new low cost. The same Uni-Tractor also mounts the Uni-Forager, Uni-Husker and Uni-Picker Sheller.

'88'

Packed with new MM Firsts to stretch yields . . . cut costs! One-piece header, 3-chain raddle feeder conveyor, adjustable tread, and 8 cylinder speeds are typical advantages.

Big capacity, light weight, and outstanding performance make the MM G-4 Harvestor biggest seller in the 12-foot size. Built for either one- or two-man operation . . real efficiency.

'G-4'

HERE'S PERFORMANCE THAT TOPS THEM ALL!

When you buy *any* of these 5 MM Harvestors, you buy performance that gets *all* your crop . . . gets it *clean* . . . gets it into the truck box in the *shortest possible time* . . . and at the *lowest possible cost*. You buy advantages that only the builders of the original, light-weight, big-capacity combine can offer . . . advantages that *keep* MM Harvestors —and Harvestor-owners—ahead of the field!

CLEAN, THOROUGH THRESHING IN EVERY CROP!

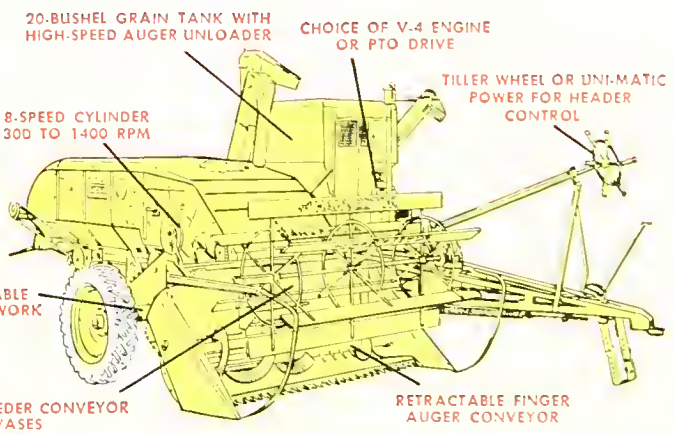
In grain, bean, or seed crops, MM Harvestors leave a clean field behind you . . . put top yields in the grain tank. MM headers travel as low as 2 inches above the ground to pick up flattened grain . . . high-speed MM sickles shear the crop with less shock and vibration. Rasp bar cylinders and the exclusive MM all-steel, one-piece welded concave and grate thresh with a thorough, gentle "rubbing" action. Fish-back channels in the exclusive MM grain pan prevent bunching of grain . . . give you the same thorough cleaning on level and rolling land.

CUT FIELD TIME . . . SLASH JOB COSTS!

Standard equipment on every MM Harvestor (unless you specify otherwise) is a high-speed auger unloader that empties the grain tank in 60 to 90 seconds. This advantage alone, can save you up to 2¼ hours of precious time every harvesting day!

Before you buy *any* combine, see your MM dealer for complete facts on *all* the money-making advantages MM Harvestors can give you.

"88" HARVESTOR SHOWS ADVANTAGES TO LOOK FOR


20-BUSHEL GRAIN TANK WITH HIGH-SPEED AUGER UNLOADER
CHOICE OF V-4 ENGINE OR PTO DRIVE
TILLER WHEEL OR UNI-MATIC POWER FOR HEADER CONTROL
8-SPEED CYLINDER 300 TO 1400 RPM
WHEEL TREAD ADJUSTABLE FOR EASIER ROW CROP WORK
3-CHAIN RADDLE FEEDER CONVEYOR NO CANVASES
RETRACTABLE FINGER AUGER CONVEYOR

WRITE FOR THESE FREE FOLDERS!

- ☐ SELF-PROPELLED "S"
- ☐ "69" HARVESTOR
- ☐ UNI-HARVESTOR
- ☐ "88" HARVESTOR
- ☐ "G-4" HARVESTOR

Check the folders you want above. Clip out this box, paste it on a postcard, and mail today with your name and address. No obligation.

MINNEAPOLIS-MOLINE

MINNEAPOLIS 1, MINNESOTA

Courtesy The Osborne Company, Manufacturers Official Future Farmer Calendar

TWENTY-FIVE YEARS AFTER YOU HAVE COMPLETED YOUR VO-AG WORK . . .

Where Will You Be?

PICTURED ABOVE is Leslie Applegate, the first president of the national FFA organization. Today, 25 years after completing his FFA membership, he is the proud owner and operator of an apple farm near Freehold, New Jersey.

But, admittedly, not all former FFA members are now farming. And 25 years from now you may not be farming. Though your interests are now and may continue to be in farming, you may not be a farmer. You, for example, may even be a farm owner while serving in one of many fields of agricultural leadership.

With that in mind, your FFA magazine—in an effort to further serve you—will begin with the next issue a series of articles on "Careers in Agriculture."

Besides bringing you many articles pointing up opportunities in farming, *The National FUTURE FARMER* will now bring you information on opportunities in other fields of agriculture.

B.F.Goodrich

Power-Grip Tractor Tire will do a great traction job for you, too!

It looks bigger—it is bigger!

It's the powerful, new B. F. Goodrich Power-Grip tractor tire, built to do a great job of traction. Knife-action cleats bite easily into the soil, take a firm, non-slip hold. Full traction in forward or reverse is the result, even in rough going. Power-Grip cleats are higher at the shoulders for deeper penetration, greater drawbar-pull. You can keep on schedule in any kind of going. You'll cover more ground in less time.

Bigger shoulders!

The bigger Power-Grip shoulders are reinforced at the base to give them extra support. They stand rigid even on hard surfaces. They bite into the soil without bending. And the shoulders are square cut to defy slippage. Every turn of a B. F. Goodrich Power-Grip tire counts for maximum traction. Dirt falls from the open-center tread and open channels as the tire rolls. Power-Grip tires stay clean, and only clean tires can give you full traction.

The B. F. Goodrich Power-Grip is the biggest tractor tire value on the market today. It's the tire that comes on new tractors.

Bigger cleats!

You get more tire, more working power for your money with the big B. F. Goodrich Power-Grip tire. The cleats have a bigger face area to press against the soil, pull you through faster. Count the cleats on leading makes. Time after time you'll find that size for size, the BFG tire has more cleats. And no other tire is wider than Power-Grip! A big, broad tread with extra cleats means greater power for you.

Wonder Tread truck tire!

That's what users call the BFG Heavy Duty Express truck tire. The tread is flat and compressed, will give you bonus miles of service at no extra cost. See your B. F. Goodrich retailer. He has tires for every farm need. The address is listed under Tires in the Yellow Pages of the phone book. Or write *The B.F.Goodrich Company, Tire & Equipment Division, Akron 18, Ohio.*

RESEARCH KEEPS B.F.Goodrich FIRST IN RUBBER

Merkle Dutrow of Browningville, Virginia, is shown at left with the 76-pound pumpkin that won first prize at a fair at Damascus, Maryland. This is nothing new to Merkle as he has walked away with these honors for five straight years.

By Aubrey Graves, The Washington Post

Photo Roundup

Dayton Crenwelge of the Fredericksburg FFA in Texas, won top honors in the Houston Fat Stock and Livestock Exposition. His 960-pound Hereford steer won over 904 steers. Dayton plans to use the $12,500 received to attend college.

Doug Allred, Sal Herrera and Lyman Butterfield, football stars from the Santa Barbara, California, FFA Chapter, handle a pigskin as well off the gridiron as they do on the field. They took top honors at a pig scramble held by their FFA chapter in which 81 students participated.

FFA music makers B. Miesse, M. Meyer, H. Crow, T. Settlemier, M. Marshall and R. DeLong, Shawnee FFA Chapter, Lima, Ohio, are very popular with their jug band. The jugs are filled with different levels of water for musical tones.

Dale Wendt, Kingfisher, Oklahoma, FFA member, is making headlines with his prize Guernsey cattle. Dale became the first junior exhibitor to win the Oklahoma Guernsey Breeders' trophy given to the person who shows the champion female Guernsey at the Sooner State Dairy show held at Enid.

Living in a city and not being able to raise livestock, members of the Artesia, New Mexico, FFA Chapter found they could solve their problem with teamwork. Harry Shaw, background, provided space to build a chapter livestock shed where they carry on cooperative lamb feeding project.

Jimmy Page and R. L. Ridling are discussing the various points that have helped to make champions of their lambs. Both are members of the Sentinel FFA Chapter in Oklahoma.

Motorcycling...
...has come of age

Wally Cox (Mr. Peepers of television) likes his cycle for maneuvering New York traffic quickly and safely. Riding the buddy seat is girl friend Nancy (Pat Benoit)

WHILE YOU were looking the other way they made a swashbuckling gentleman out of that old roughneck, motorcycling. From a rowdy whose accident record once overshadowed that of early aviation days, they've made the sport a handsome, two-fisted adventurer, but smart.

In the past decade motorcycle dealers, manufacturers, and others concerned with the future of the sport have worked some minor miracles. By setting new standards for motorcycle riding, they've replaced recklessness with courageous skill; slam-bang operation with proper knowledge and care of the machines.

As a result, casualties have gone steadily down—and so have insurance rates. Thousands of newcomers have been attracted to the game; and motorcycling is enjoying its biggest boom.

Cycle tradesmen have been taking the lead in encouraging competitions which stress riding skill and control of the bike.

Any number of events can be programmed to feature rider abilities which are necessary in modern traffic. A few here serve as examples. None of these require more than a hundred yards of track, plus space for spectators.

A slow "race" is ideal for developing balance and smooth clutch-and-throttle coordination. In this event the idea is to be the *last* rider across the finish line. Riders are disqualified for not starting immediately on signal or for allowing a foot to touch the ground at any time in the race.

A clothespin race always goes over big with the crowd. Takes real teamwork by the cyclist and his pinner-upper.

Spectators hold their breath while the skilled rider of a big bike balances his machine perfectly motionless for seconds at a time.

Another event that sharpens rider skill is the stop-and-dig. Two ropes about two feet apart are laid across the finish line. One at a time, riders race for the finish line then brake their machines to a standstill with front wheels between the ropes.

Contestants are disqualified for failure to completely cross the first rope, or for touching the second. Otherwise, speed determines the winner. This stunt is usually an eye-opener for those who previously thought they could stop their bikes "on a dime."

Since cycling crowds are usually well mixed, special events are often run for the ladies only. Contests that team up boys and girls together are sure fire.

For the clothespin race, a 50-60 foot clothesline is strung up about five feet above the track. A girl riding tandem (or buddy) is given an armful of "clothes" and a fistful of clothespins. The boy piloting the bike must travel as slowly as he can down the line to allow the girl to hang out the maximum number of clothes.

The event offers a lot of fun for the crowd as the girls tie themselves in knots trying to pin the elusive line. At the same time, the boys are learning what it takes to balance two riders on one machine.

Today's motorcyclists take pride in their smartly cut, colorful uniforms. A best-dressed boy and girl award keeps this interest sparkling. To inspire group interest, there is also usually a trophy given to the best-dressed club attending the meet.

You might say that motorcycling has come of age.

+ + +

Can You Top This?

There are a lot of farmers growing a lot of corn. Last year the average yield in the United States was 39.6 bushels per acre. But in Hermiston, Oregon, a Future Farmer set a new record in his state with 204.3 bushels per acre.

The fellow setting this high record was Ronnie Larson—pictured above with his state champion plaques—who grew U. S. 13 hybrid corn on his three-acre plot. The year before, that plot had produced 152 bushels of corn per acre. To get the big increase Ronnie used more water and fertilizer. A total of 278 pounds of available nitrogen and 100 pounds of available phosphorus were applied per acre in five separate installments. Irrigating was done before plowing and every week after the corn was up—a total of 11 irrigations. Ron figured his labor income on the corn project as $803.69 on the three acres or $267.89 per acre.

That 204.3 bushels per acre is a lot of corn. Can any Future Farmers top Ron's record?

Huxley, Iowa, members Ben Erickson and David Tesdall watch Advisor Dick Limbough show a germination sample

Seed Testing

By Jim Evans

CHAPTERS CARRYING out sound seed testing services can feel proud, and rightly so, for a definite service to local farmers. Those extra dollars are a big help in the chapter treasury, too.

Crop specialists say seed testing is good insurance. Farmers can hardly afford to invest in fertilizer, new adapted crop varieties, and expensive machinery, then end up with poor yields because of low seed germination.

That's where the "service" part of an FFA seed testing program comes in. The accessibility of such a local service is bound to increase the number of tests made.

In carrying out a seed testing program, don't forget that you take on considerable responsibility. You must realize what seed tests mean to farmers, and the trouble that could arise from a poor job.

This responsibility can best be handled by knowing exactly what you're doing, and why. Chapter members should know the rules for seed testing, as outlined by the Association of Official Seed Analysts, and make tests in accordance with them.

This is important for two reasons. First, anything worth doing at all is worth doing right. This is especially true because a seed testing service is actually a means for you to get basic experience for future application.

Second, a chapter can't afford to do a poor job of seed testing. Let's take an example. Suppose your chapter tests a certain seed sample and reports 90 percent germination. The farmer then sells some seed to a neighbor who plants it and gets only a 60 percent stand.

The neighbor is dissatisfied because he bought the seed on the basis of 90 percent germination. The farmer shifts the blame to your chapter, and rightly so.

Such a case might never happen—but it could. The best way to avoid it is to do a good job.

Here are some of the danger spots you are likely to encounter in conducting germination tests: 1) temperature control, 2) representative sampling, and, 3) seedling interpretation.

The problem of temperature control in an FFA germination test quite often stems back to the chapter's financial situation. It's hard to dig up money for good equipment. But the germinating equipment makes quite a difference in accuracy of test results, and though it need not be extravagant, it should be adequate.

Your germinator should contain both heating and cooling mechanisms because seeds vary somewhat in temperatures at which they germinate best. Corn and soybeans, for instance, will sprout well enough at normal room temperature. Red clover, on the other hand, sprouts best at temperatures between 59 and 68 degrees Fahrenheit . . . somewhat below normal room temperature.

Temperatures of from 59 to 68 degrees are most favorable for the germination of oats also. If the oat seeds are not dormant, the latter temperature will do. If they are dormant, one of two things can be done: 1) pre-chill the sample at refrigerator temperature for a week, then put it in the germinator for the normal period, or . . . 2) leave the sample in the germinator the entire period at 59 degrees.

Bob Tweet and Phillip Jordan, Huxley FFA, find seed counting is close work

Under representative sampling consider two points. First, if the chapter has any say in obtaining a seed sample from a farmer, and it should, stress the importance of picking out seed from different parts of the grain bin. This insures a better cross-section.

The second point deals with the number of tests your chapter should run on each sample. So-called "check" samples are used in seed germination tests to average out some of the individual sample variations. Four 100-seed tests are recommended per sample. At no time should fewer than two tests be run on each sample.

Experiments have shown germination error to be only 9 percent on a 400-seed test basis. Two hundred-seed tests showed over 11 percent germination error, and the 100- and 50-seed tests were substantially higher.

Seedling interpretation trouble can be overcome by just following rules. These rules give a certain number of days between time of planting, and the first and last counts.

Most important is the fact that seedlings should be large enough that the analyst can be certain all essential plant parts are present for continued growth under favorable conditions. Some seeds are dead and will never grow. Some abnormal seedlings will emerge and appear to be normal for a short period. These will soon die because they lack essential plant parts.

Such abnormal sprouts would be considered normal if counted as soon as they emerge. But by delaying germination count until seedlings are larger, it is possible to determine whether they are normal or abnormal.

Your chapter's responsibility doesn't end after the farmer has been handed his seed test report. He may wish to sell part of his seed. In such instances the chapter should inform him as to what the state's agricultural seed law demands for legal seed sale.

If a germination test alone has been made, a purity analysis and noxious weed check will be necessary in addition. A sample on sale can contain no primary noxious weed seed and only a limited amount of total weed seed. This germination and weed seed information must be properly presented on a label with the seed lot.

All in all, you should be familiar with what your state requires in relation to such problems, and see that the information is passed along to farmers for whom you do testing.

Since crop yields have become increasingly important in recent years, the functions of seed testing services have also been stepped up. By assuming responsibilities in making consistently dependable seed tests, FFA chapters can make themselves more valuable to the communities in which they function.

+ + +

"Certainly, I have a sense of humor. Why do you ask?"

NORTH of the BORDER

NORTH OF THE BORDER you'll find the same type of Future Farmer spirit and ambition that has guided and developed the FFA. Once planted in Canada, the Future Farmer idea has caught on and is growing steadily there.

The Future Farmers of Canada now total 17 chapters and over 600 members. That's not a bad record for a group that began ten years ago with one chapter in Creston, British Columbia. The Creston Chapter came into being in 1944, after a group of local citizens, headed by school inspector C. J. Frederickson, visited Kalispell, Montana. That visit sold them on the FFA.

One of the men who visited the Montana Future Farmers, the district's horticulturist, became the first vo-ag instructor at Creston. He and his students also formed the first chapter of what they hoped would one day be an organized Future Farmers of Canada.

The teacher, Gordon Thorpe, designed the emblem for the new organization. It shows a sun rising between two hills and casting its rays over a field and plow. These are framed in the outline of a tree, which is placed on a maple leaf—the national emblem of Canada.

At the time Creston started a vo-ag department only one or two other schools in the province offered vo-ag to their students. A great need existed for farm training in British Columbia, a large area mostly agricultural, and, as more people heard of vo-ag, the demand for high school farm training increased.

In April, 1948, school officials of B C. witnessed the activities of American Future Farmers when they attended the Montana State FFA Convention. Two years later, backed by an overwhelming demand from schools and parents, vo-ag became a part of high school instruction.

That summer 18 young men completed their training to teach vo-ag. Plans were made to set up a province-wide organization of Future Farmers, and, when classes began that fall, 15 high schools offered vo-ag to their students.

In June of '51, the teachers met to discuss their first year of work. Each instructor brought along one or two of his students, and these boys elected the province's first FFC officers.

At the next meeting in April of the following year, vo-ag student delegates elected new officers and drew up a constitution and creed. The first big convention was held last April in Creston. One hundred and three students and 20 officials came, including visitors from the province of Alberta and the United States.

This April will see another big, three-day convention. Present will be two official delegates and two contest entrants from the chapters along with FFC officers, advisors, and American visitors.

Entrants will compete in judging livestock, poultry, and swine plus grains, forage crops, weed seeds, and potatoes. Farm mechanics and public speaking

The FFC emblem is a gold maple leaf—the national symbol of Canada—with a rising sun, plow, and tree on it.

contests are also on the program. And, to top off the serious events with a round of fun, there'll be a tractor rodeo.

The idea of vo-ag and Future Farmers is catching on in other parts of Canada. The first FFC chapter is being formed in Alberta province this spring, and other schools there are interested.

Before long, the farm boys in Canada will all join together and form an FFC organization stretching across their land.

F. F. C. Creed

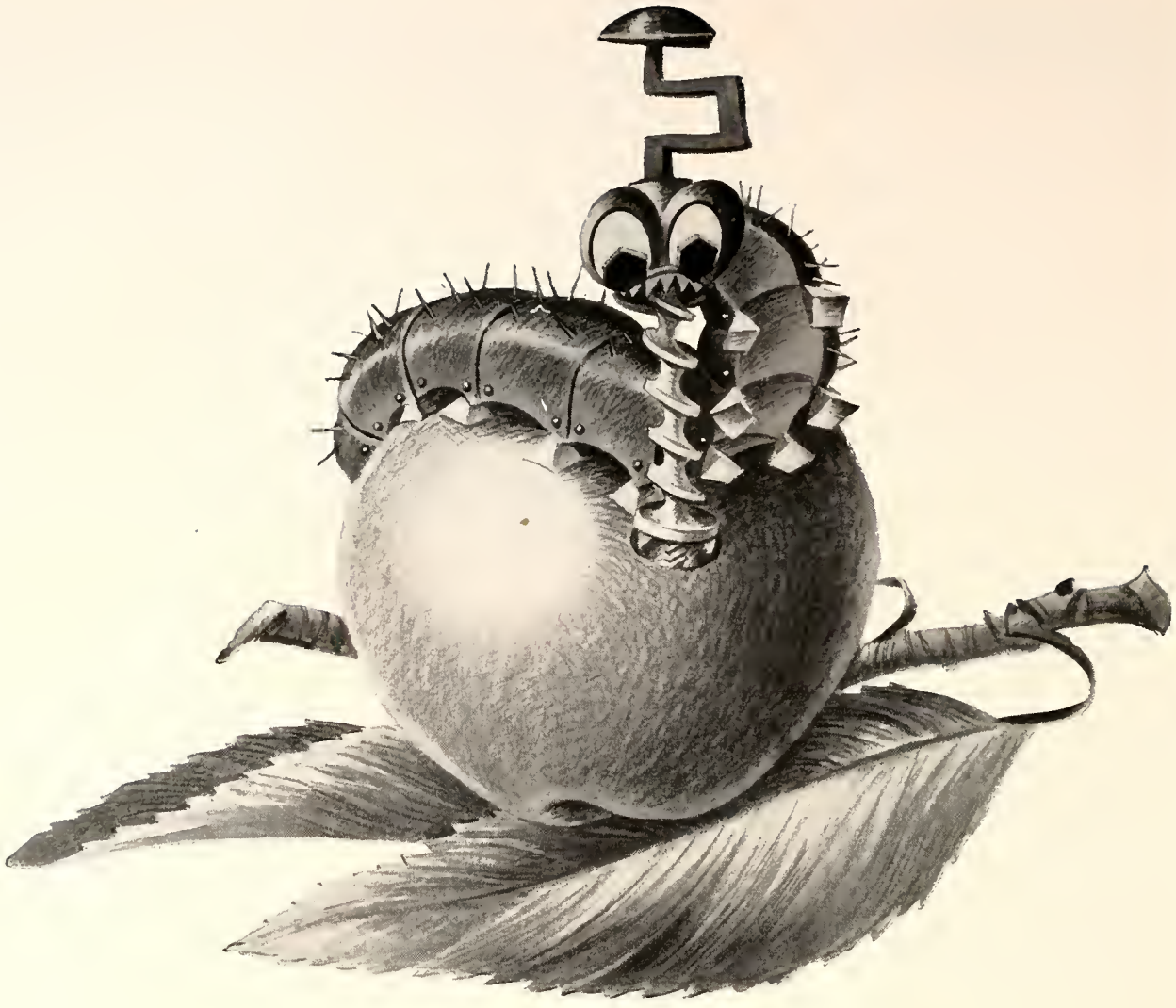
I believe in the future of farming and that life on a farm is both honorable and satisfying.

I believe that success in farming comes through a scientific attitude, efficiency, hard work, and determination.

I believe in being a good citizen . . . honest and fair in all my dealings.

I believe in accepting responsibilities and doing my part in my home, school, and community.

I believe that serving my country, helping others, and doing my best in my vocation will lead to a happier, fuller life.



Their weapons never change

. . . but ours do

Insects drill, chew and shred crops according to the tools they carry. Their techniques never change. The ways which farmers fight these insects, however, are constantly improving . . . largely through chemistry Today, better weed killers, insecticides and fungicides help reduce crop losses. Tomorrow, chemical research promises us even more efficient control of crop destroyers.

Diseases, weeds and insects lurk on every farm. Du Pont scientists are constantly looking for better ways to stop them. Control of weeds with substituted urea herbicides, with their season-long weed control, will be a boon to farmers growing asparagus, sugar cane and certain other crops. One of the very few insecticides approved for use on dairy cows is Marlate® methoxychlor, a Du Pont discovery. Control of the major diseases of tomatoes is now possible with the newest addition to the list of Du Pont carbamate fungicides . . . Manzate®.

The goal of Du Pont research is chemicals such as these . . . products to increase your opportunities for growth and success in agriculture.

DU PONT
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E. I. du Pont de Nemours & Co. (Inc.)
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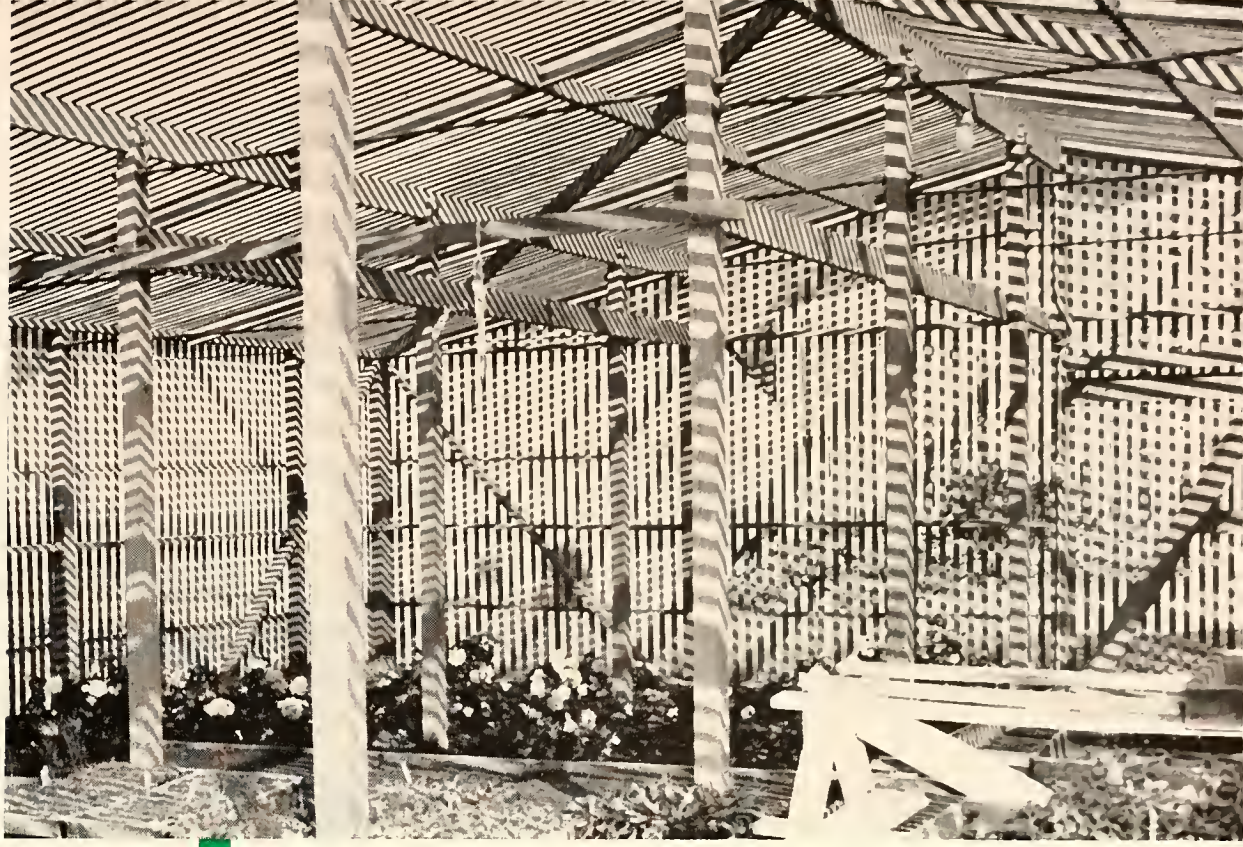
BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*



WHY NOT A Greenhouse?

GREEN-THUMB GARDENER or not, a nursery project, tackled with some know-how and enough determination, can be just as successful as fattening a steer or encouraging a flock of laying hens.

Every locality has some kind of a market for nursery products. Figures show that in spite of extreme variations in climate, differences in soil structure and topography, and fluctuating public demands, nursery sales remain more or less constant year to year throughout the United States.

Future Farmers over the country are adopting nurseries as chapter projects, using excess profits to finance group activities. Hundreds of individual FFA boys own their own units in which they grow a variety of plants both for sale and personal use.

The FFA in Tustin, California, is one group entering the nursery business. The members had been using a 10 by 14 foot room in the ag building as a storehouse for an assortment of growing things: flowers, shrubs, vegetable seedlings, and trees. These were grown for sale, for chapter use, and classroom observation.

Forced by lack of space to vacate the room and build a larger unit, or sell most of their stock, the Tustin boys chose to rebuild. A weed-covered spot, when cleared off, proved to be a favorable site for a greenhouse.

Being in the class of small growers, a lath house was decided on as the least expensive and quickest to construct. Ingenuity and bargaining combined to make the construction cost very low for the Tustin Chapter. The boys searched

Interior of a typical lath house of simple construction. Sawhorses here hold flats of many growing things. These begonias (far corner) are ideal plants for lath houses.

Glass houses, more expensive to build, are long lasting. This one shows ventilators for regulating temperatures. Glass is painted various ways to cut off direct sunrays.

for, found, and bought a batch of damaged venitian blinds and took them apart. The slats, nailed three-fourths of an inch apart and painted, became latticework for the lath house. The finished house is pictured here.

Another method for growing plants is coldframes, which are easily attached to a barn, garage, or other outbuilding. Coldframes are popular because they, like lath houses, are easy to plan and inexpensive to construct. However, if

A beginner can build coldframes. Windowpanes fit into frames for cold weather protection. Note snow fence to shade new plants.

your potential market promises to be big business, experts suggest erection of glass houses and hotbeds. Hotbeds, as the name implies, differ from coldframes in that they have a heating system.

But before even the most basic plans are drawn up, first find out if your area has a real market for nursery products. You might ask yourself these questions:

How many nurseries are already established that will offer competition to your business?

Is your community primarily residential, industrial, or is it farmland?

Are the majority of the local citizens home owners or do they rent their property? (Home owners, of course, are more apt to invest money and time in landscaping.)

Are there new housing developments or city-wide improvement plans which will open up landscape material markets for you?

Does the number of hotels, restaurants, theaters, and the like, lend possibilities for a plant-rental system as a nursery side line?

Seeing is believing

You'll want to initiate along with the nursery unit some classroom study on types of soil, water requirements, fertilizer response, optimum temperature for different plants, and some experimental plant breeding trials.

Conduct lots of experiments while you're learning. As an example, take the matter of water requirements for a given plant. A bench might be divided into three sections, one of which is given proper watering, one watered far beyond its soil capacity, and the third from which all water is withheld. *Seeing* the results will fix them firmly in your mind.

Another study might be with types of soil, brought in or made artificially by mixing different proportions of sand, clay, silt, and so on. Watching the development of the various crops and ornamental plants started in these soil types teaches an unforgettable lesson. Along with soil type experiments, the water holding capacity of various soils can be tested.

Next you could take up results of different depths of sowing and rate of seeding. You can also learn to determine by sight what minerals your plants lack. How do various plants behave and look when the soil is too acid or too alkaline? This is a good time to show effectively hunger signs in plants and fertilizer response.

The greenhouse is of real worth in experimenting with ideal (optimum) temperatures for crop plants, flowering plants, and ornamentals; for forcing spring flowers after fall potting and cool storage; for an early start of vegetable seedlings, etc.

When you get your greenhouse going, you and your instructor will think of many more projects. Germination, weed control, and methods of plant propagation are some. Add others.

A greenhouse project will benefit each of you now in your home improvement projects, and certainly a knowledge of flowers and shrubs and how to grow them will be beneficial to you as future home owners. Another benefit to be reaped later is that your nursery can be used as a practice ground for public relations. Learning the ins and outs of selling will prove invaluable in almost any type of future occupation. ◆◆◆

"May I have a nickel? All my money's tied up in piggy banks."

SOIL in the SPOTLIGHT

THE SOIL of Oklahoma will get a thorough going-over this April by hundreds of land experts from every section of the country. There'll be no machinery cutting it up or turning it over. But plenty of Future Farmers and other folks will be examining it carefully with well-trained eyes.

The big attraction is the National Land Judging Contest in Oklahoma City. Here Future Farmers who know their soil will have a chance to compete for large national and regional prizes.

Two hundred fifty dollars is waiting for the winning four-man team, $50 for the individual FFA soil judging champ, and $50 each for four regional team winners.

Any FFA chapter or member can enter. The contest will be held April 29-30, so entries must be mailed by April 19 to Jack Putman, Executive Secretary of the Oklahoma FFA Association, College Station, Stillwater.

If your knowledge of soil conditions is in good working order, you'll have no trouble. But, should you want to brush up a little, here's a preview of what to expect in the contest.

During the judging, you will analyze and report on four fields selected and classified by soil scientists. On each field you will judge its soil texture and permeability, depth of surface soil and subsoil, slope of terrain, erosion, and surface drainage. Then you'll place the field in the correct SCS land capability class.

After determining the conditions of the fields, you will choose from a list of possible improvements the ones you think most suitable for each area.

Keen competition is expected among the Future Farmer contestants. Many of the entrants will have won prizes in local, district, and state contests.

Land judging, which is becoming popular throughout the United States, had its beginning in Oklahoma in 1941. Now, 14 years later, it has become as common as livestock judging in many areas.

Last year, the National Land Judging Contest attracted 93 FFA teams—22 teams from outside Oklahoma.

This year the sponsors of the contest have sent invitations to every state, and they're making plans for the biggest land judging contest in history.

"This year I'm using more than ever before!"

This year many of the best farmers are using more fertilizer than ever before. With farming costs going up and farm profits coming down, they want the extra yields of high-quality crops that fertilizer adds to every acre at such low extra cost.

Figure it out for yourself. Your investment in land, labor, seed, machinery, insect control and other fixed expenses is the same whether your yields are high or low. When you double or triple your yield through the use of more fertilizer, you have two to three times as much crop income to carry your fixed expenses. Your only extra costs are the cost of the fertilizer and harvesting the extra yield. The extra yields added by fertilizer are the lowest cost and most profitable share of your crop. You are in better shape to make a good profit despite low crop prices, acreage restrictions and other conditions beyond your control.

If you grow corn, for example, do you know how many bushels per acre you have to produce to cover fixed expenses? In one state the break-even point is 40 bushels per acre. In another state it varies from 30 to 70 bushels per acre depending on the value of the land. If your break-even point is 40 bushels and your yield is 35 bushels, you've lost money. But, if you use enough fertilizer to increase your yield to 100 bushels per acre, you make a big profit.

First consideration should be given to the important economic fact that a bushel or a pound of any crop can be produced much more economically when the yield is high than when the yield is low. The yield per acre bears a positive relation to the cost of production and the yield is dependent on the fertility of the soil.

Fertilizer is your best investment. The price of fertilizer has not gone up like the prices of many other things the farmer buys. Fertilizer grows farm profits. Returns from thousands of tests show that $1 invested in fertilizer produces an average return of $3.75 in extra yields. On many crops the return is much higher. Put more fertilizer to work for you. It's your best answer to the present farm situation.

The fertilizer industry serves the farmer. Nitrogen Division serves the fertilizer industry as America's leading supplier of nitrogen for use in mixed fertilizers.

SEE YOUR COUNTY AGENT

Ask your County Agent to recommend the analyses and the amounts of fertilizers best suited to produce big yields of the crops you grow on your soil. His advice to you is based on the latest official recommendations from your Extension Service and Experiment Station.

SEE YOUR BANKER

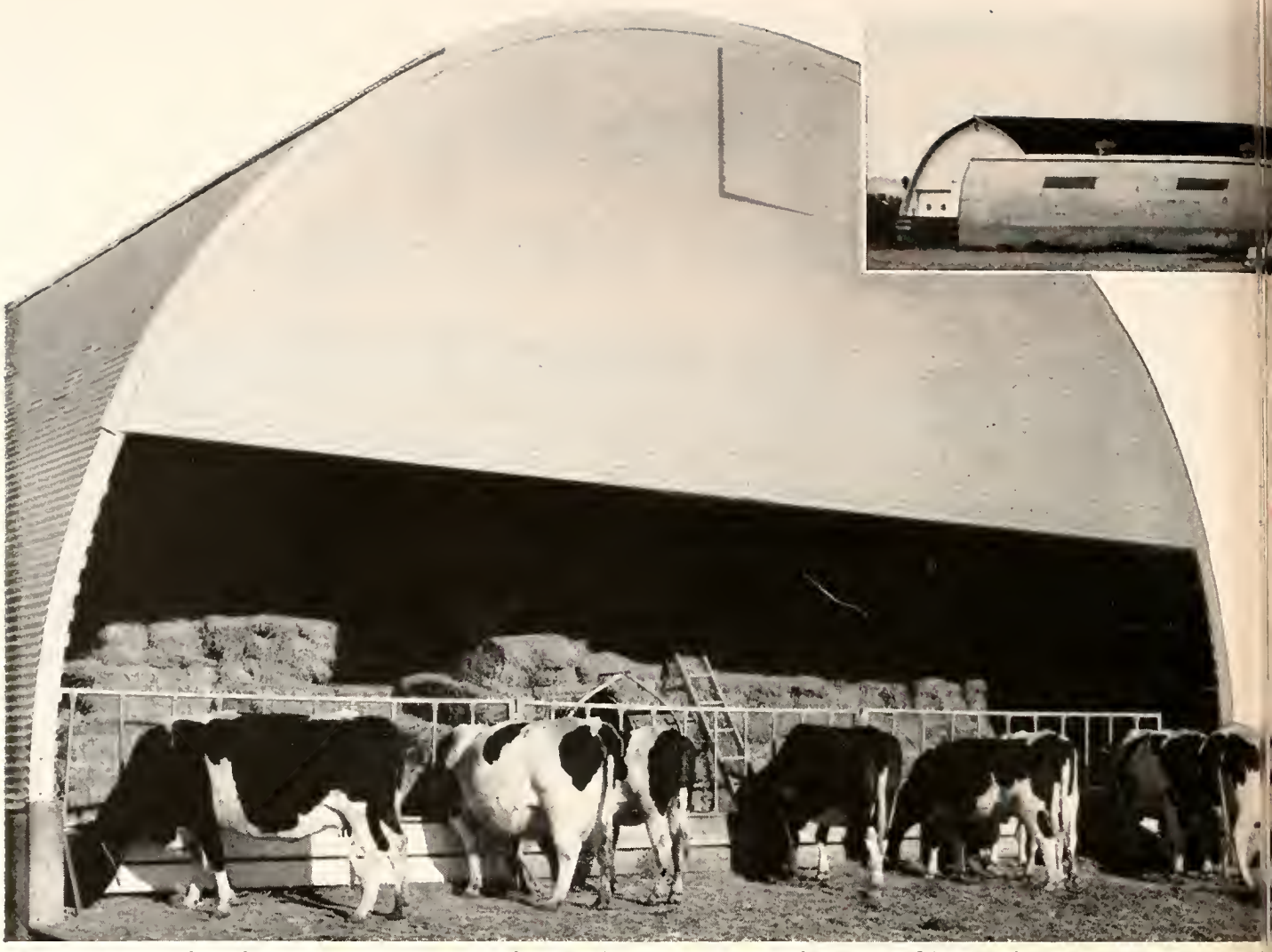
Bankers are alert to good investments. They know that fertilizer pays a big return in the short period of a growing season. If you need money to buy more fertilizer, most bankers consider the extra yields produced by fertilizer as an excellent risk.

SEE YOUR FERTILIZER DEALER

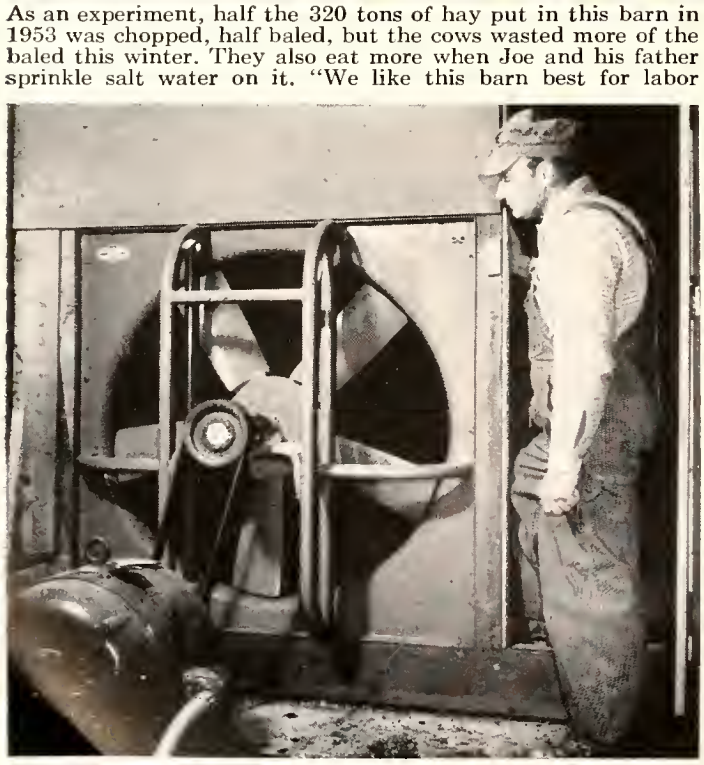
Your fertilizer dealer can supply you with a good brand of fertilizer in the amounts and analyses as recommended by your county agent. Help your dealer to get your fertilizer to you on time by placing your order early and accepting prompt delivery. Use more fertilizer than ever before and have it on hand when you need it. Remember, fertilizer grows farm profits. Use enough to really pay you big!

FERTILIZER GROWS FARM PROFITS

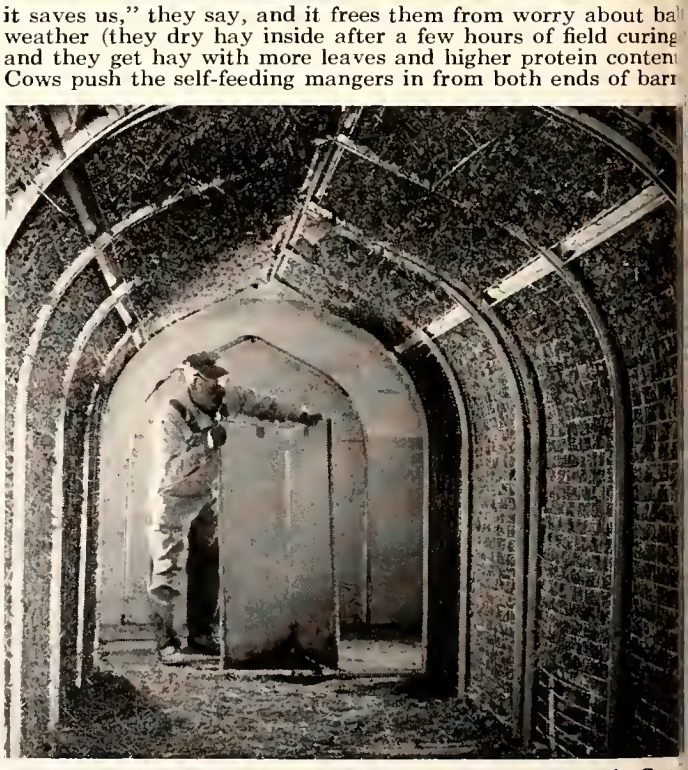
NITROGEN DIVISION
Allied Chemical & Dye Corporation
New York 6, N. Y. • Richmond 19, Va.
Ironton, Ohio • Columbia 1, S. C.
Atlanta 3, Ga. • Omaha, Neb. • San Francisco 3, Calif.



As an experiment, half the 320 tons of hay put in this barn in 1953 was chopped, half baled, but the cows wasted more of the baled this winter. They also eat more when Joe and his father sprinkle salt water on it. "We like this barn best for labor it saves us," they say, and it frees them from worry about ba weather (they dry hay inside after a few hours of field curing and they get hay with more leaves and higher protein conten Cows push the self-feeding mangers in from both ends of barn



Joe Kargel looks at the 42-inch fan and 10-horsepower motor at the side of the barn. The fan blows drying, cooling air into an air chamber in the middle of the barn, and tunnels in center of both ends of barn carry this air to all the hay in the barn. Tunnel sections are removed as cows eat their way into the hay.



Joe folds up gate which controls flow of air in tunnel. Gat can be locked in any of tunnel's arches, making it possible t dry hay at any spot in barn. Lateral ducts on floor (openin at lower right) carry air to sides of barn and are spaced t insure complete circulation through all the hay stored in barn

Even the farmstead arrangement is efficient on the Kargel farm. The house is convenient but not too close to other buildings. Everything is built on a knoll with good drainage, and barns are located to give livestock the most protection from winds. There are 55 acres of pasture and hay-grain-corn rotation is used on the rest, with grain following three years of alfalfa.

The Best Way to Handle Hay

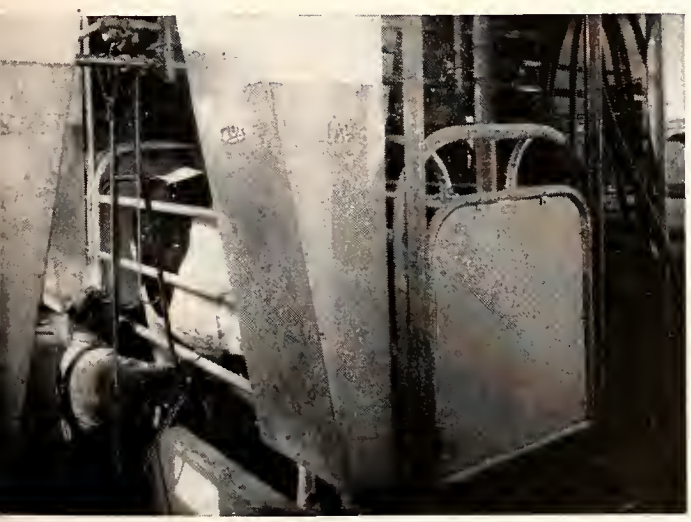
A new way to handle hay revolutionized this Minnesota farm. Any ideas here you can use?

If you're looking for little labor and lots of efficiency on a dairy farm, visit Joe Kargel and his father at Lake Elmo, Minnesota. They farm 250 acres, milk 28 cows, have no hired help and plan to increase their milking herd to 75 cows by the end of next year. The buildings and cows do most of the work on this farm and Joe and his father do the planning. You get your first idea of how efficient the operation is when you look at their Quonset 40 by 100 hay drying and storage barn, with self-feeding mangers at each end and the cows feeding themselves. Alongside this is a Quonset 32 by 132 loose-housing barn where the cows find shelter when they're not eating. It's only a few steps from one end of this barn to a Quonset 20 by 156. The closest end of this is a holding area leading to a big 8-cow pit milking parlor with feed bins overhead and a milk house at one side. An 8-foot vestibule separates all this from a calf barn and lets the cows out of the milking parlor. And it all started because the Kargels wanted a better way to handle hay.

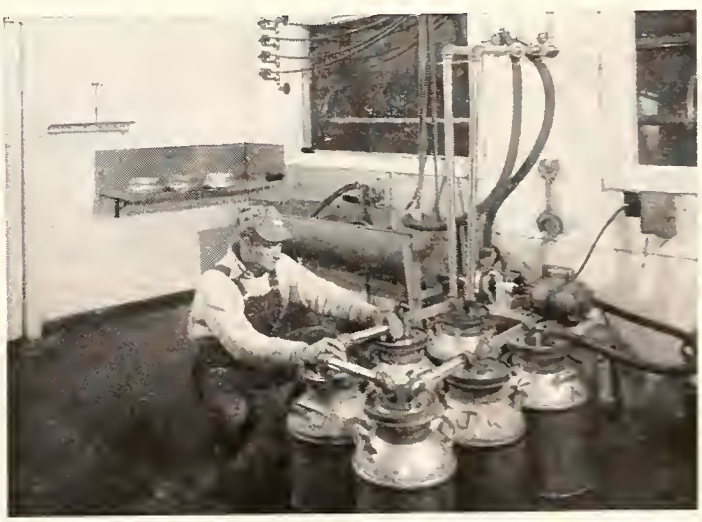
There's a Quonset® for Every Job on your Farmstead

YOU NAIL TO STRAN-STEEL FRAMING

GREAT LAKES STEEL CORPORATION
Stron-Steel Division Ecorse, Detroit 29, Mich.
NATIONAL STEEL CORPORATION



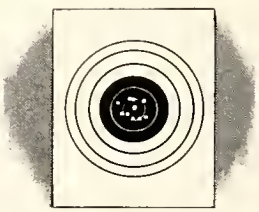
Two men put a cow a minute through this 8-cow milking parlor. Dial settings on feed chutes give each cow the right amount of feed in bowl, there's hot and cold water in each pit, the men raise and lower gates at a touch and sloping concrete walls on stalls give cows minimum foot room, makes them all stand still.



These cans will be replaced by a bulk cooler just as soon as a bulk route is established in the Kargel neighborhood. Two big windows at Joe's left give complete view of the milking parlor. Joe's oldest son (he has four) is only 12, but the work is so easy in this milking parlor that he frequently mans one pit.

A *powerful* lot of real shooting fun

The tremendous Super-X power that smacks wood blocks wide open and knocks tin cans and bottle caps high into the air makes any 22 shooting a lot more fun. Load your 22 rifle with Super-X 22's and see how they reach 'way out and deliver more slam bang power than you'll ever need . . . smack in the center of your target . . . right where you need it most! Try 'em!



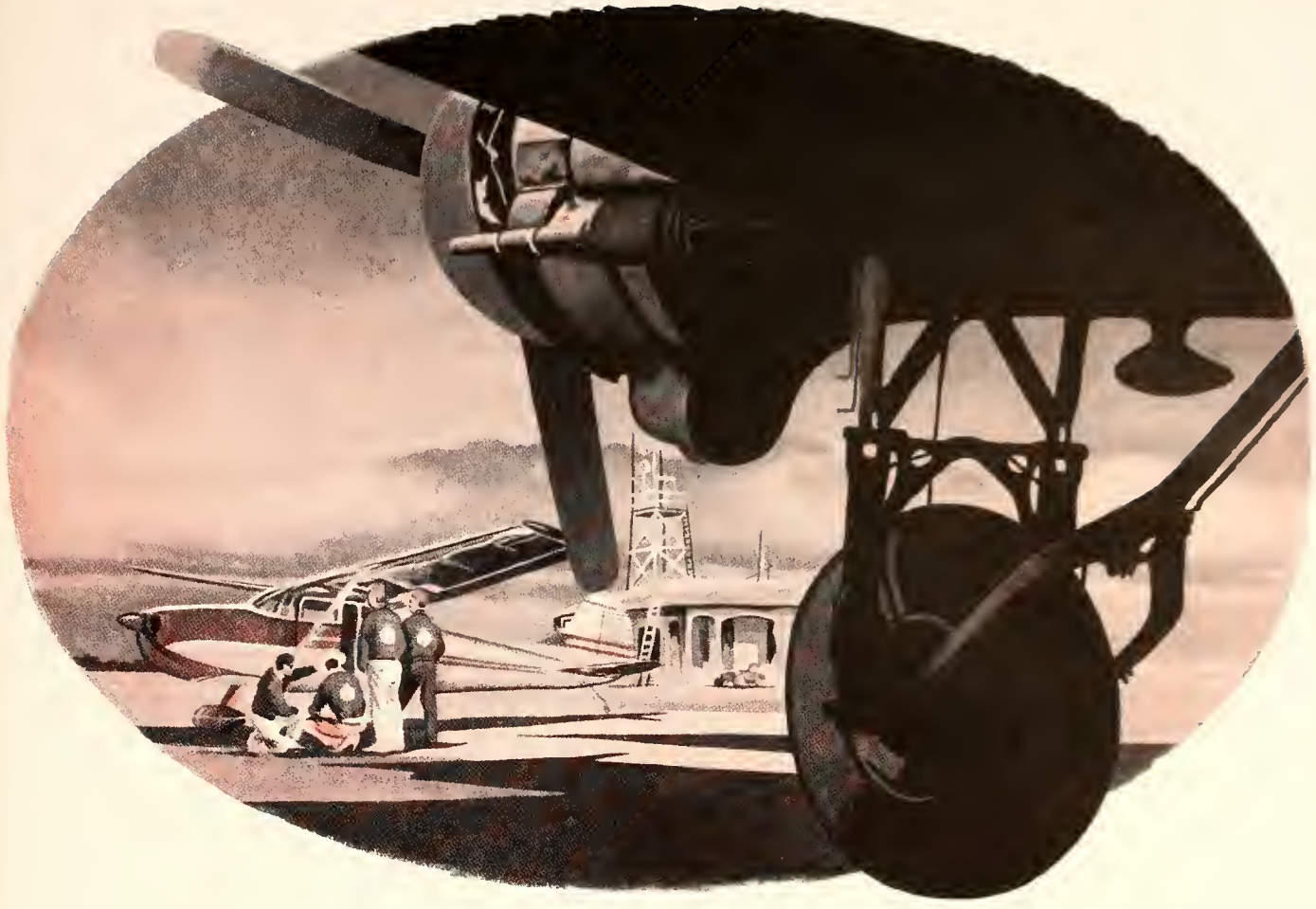
All Western priming is rust-proof, non-fouling and non-corrosive.

Western
TRADE-MARK
Super-X
22 CARTRIDGES

AN Olin PRODUCT

SOLID OR HOLLOW POINT

ARMS AND AMMUNITION DIVISION OF OLIN INDUSTRIES, INC., NEW HAVEN 4, CONN.



Go Flying

By H. D. Garver
Advisor
Shawnee-Mission Chapter

THE next time your chapter is planning a trip or tour, why not take it by air? You'll find, as we did, that air travel is interesting, educational—and inexpensive.

Last summer, the Shawnee-Mission Chapter decided to use air transportation for a trip to Woodward, Oklahoma. We flew from Manhattan, Kansas, to Woodward, went sight-seeing, and returned home in less than 36 hours' time!

We covered a lot of ground in 36 hours, but we went slow enough for aerial observation en route. In fact, we had plenty of time to glance over the countryside as we flew along. It's an interesting fact that a car doing 60 mph passes more quickly out of sight of objects than a small plane at four thousand feet.

Of course, our pilots couldn't pull over to the side of the road, but we were able to see and study entire farmsteads, field layouts, field terraces, and wooded areas from our planes.

The first lap of our journey, made by car, took us from our home town near Kansas City to Manhattan, the main office of our charter service. There we toured Kansas State College. Our flight to Woodward was interrupted by a stopover in Wichita, where we spent an enjoyable hour going through the Cessna Aircraft Company's plant and dining in the company's cafeteria.

When we arrived at our destination, we were taken in tow by Hugh Robinson, local vo-ag teacher and a wonderful fellow. We were shown the Woodward vo-ag department's cooperative feeding layout and driven around the ranching countryside, which was quite a contrast to the green hills and fields of eastern Kansas. The climax of our visit was a tour of the Southern Great Plains Agricultural Experiment Station at Woodward.

After our flight back to Manhattan, we went to the annual Agronomy Field Day near the Kansas State College and ended our trip by going through the college agronomy farm.

Over a thousand road miles were covered by air at a total cost of $540 including plane charter fee, federal tax, and meals and lodging for 24 people. Each boy's share of the expense was $15, and the Chapter treasury made up the difference.

Of course, a lot of planning goes into a trip like ours, and your chapter will have to do some groundwork before you take to the air. Here are a few suggestions to consider when you're arranging for your trip or tour.

(Continued on next page)

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First of all, use chartered planes. It's true that privately owned planes can be obtained for less money, but they also give their passengers less protection. All charter service planes carry adequate insurance on passengers, and all are regulated and examined for safety features by the Civil Aeronautics Administration. Privately owned planes are under CAA regulation, too, but they can't be as closely supervised.

I would also recommend that you use small, high-wing planes. We used a Lockheed and three Cessna 170's, which traveled at relatively slow speeds and gave us a clear, uninterrupted view of the landscape.

If you use different types of planes, such as the ones we used, don't expect them to travel together. Unlike automobiles, each type of plane has its own cruising speed. Close or formation flying is difficult for the pilots and dangerous to the passengers.

Your planes might hit some rough air and cause a few of the chapter members to have some uneasy moments. Be prepared for such emergencies by taking along a supply of "air sick" pills—just in case.

When planning your trip, make arrangements for ground transportation at the end of your flight. The FFA chapter in the vicinity of your point of destination will probably be glad to help you out on this matter.

For information on accommodations at your destination, consult with a businessman or the chamber of commerce there. Ralph Gilbert, prominent rancher and businessman, was our host during our stay in Woodward, arranging for entertainment, eating facilities, and the like.

The cost of your trip can be reduced considerably if you'll do a little shopping around and adjusting of schedules. Choose a time of the week when charter demands are lightest and lower rates are available. Also plan to return by noon so the planes can be used elsewhere on the same day. And drive to the home airport of the flying service to save them the expense of picking you up and bringing you back.

For help and guidance with your plans, consult the nearest CAA office. They will give you valuable advice on planes available, routes, landing fields, and other information you need.

We hope you'll join us and the many other Future Farmers who are going places by air. Good flying and happy landing!

A Perfect SCORE

It had never been done before.

In 30 years, no one had ever gotten a *perfect* score in poultry judging in the Kansas annual high school vocational agriculture judging contest.

But a few months ago, Roger Adamson of Cherryvale, Kansas, broke the record. When results came in, the judges found a perfect score of 900 points when they totaled Roger's judging card.

The judges were not through with this young red-headed farm boy. Roger didn't stop winning honors when he finished with the poultry judging.

He was high individual for the entire four phases of specialized judging in poultry, animal husbandry, agronomy, and dairy husbandry. His total score was 3,205 points. His nearest competitor scored 3,057 points.

Roger had to match his skill against 417 other boys to win "the highest individual" ranking in the judging contests.

While Roger was finishing his work in the judging contests, the annual FFA speaking contest judges were waiting to hear his speech. He had to keep them waiting a full hour! You would think that nothing short of Lincoln giving the Gettysburg address would impress the judges after a wait like that. But Roger Adamson walked off with the first place award in the public speaking contest.

It was a big week end for Roger, but you would have to get someone else to tell you about it. This champion is too modest to talk much about his honors. But when Clem Young, his FFA advisor, was asked about Roger, he answered, "Wish I had a 100 boys like him in my class."

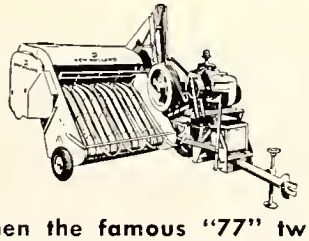
Edwin Miller MEMORIAL FUND

Very generous contributions were made to the American Cancer Society in memory of Edwin Miller whose story appeared in the last issue of *The National FUTURE FARMER*. The money donated by the chapters and individuals listed below has been turned over to the American Cancer Society to aid in the fight against the terrible disease which claimed Edwin's life and which brings tragedy into many homes every year.

Ojai Chapter No. 7, Ojai, California
Columbus FFA, Columbus Junction, Iowa
Vassar FFA, Vassar, Michigan
Fred Leighton, Winona, Minnesota
Winona FFA, Winona, Minnesota
Mott FFA, Mott, North Dakota
Canal Winchester FFA, Canal Winchester, Ohio
Forest FFA, Forest, Ohio
Jack Putman, Stillwater, Oklahoma
Staff, *The National FUTURE FARMER*

Farmers follow a "Super 77" during a field test

"Meet the world's fastest twine-tie baler"



HERE'S THE INSIDE STORY OF **NEW HOLLAND'S** NEW "SUPER 77"

When the famous "77" twine-tie went on the market in 1950, New Holland engineers went to work all over again. Their problem: how to get more capacity from what was then the fastest baler without sacrificing dependability. "Beat friction," said the engineers, "and you beat the record!"

By 1952, the "77" had become the largest selling baler in the country. But engineers read field reports and kept on working. This February they were ready with the new "Super 77"—a twine-tie that bales up to 12 tons of hay an hour—*and more*—proved in supervised field tests throughout the United States.

How was the big increase made? Here are examples. The plunger now rides on four rollers with sealed ball bearings instead of slide blocks. Sealed precision bearings were also installed on the tightener pulley, main drive pinion shaft, pickup and auger drive and pickup cam followers.

Design of the shearing knives (stationary and plunger) was changed to V-shape for most efficient slicing. Wadboard and wadboard linkage were made more rigid and compact—lubrication easier and more positive. Parts, as in the overcenter assembly, were reduced for simpler adjustment.

Result: By simply improving the efficiency of a sound design, New Holland engineers developed the fastest twine-tie in the world. And farmers advanced further in their race against time to put up more and better feed with greater economy.

The New Holland Machine Co., New Holland, Pa. A subsidiary of The Sperry Corporation.

NEW HOLLAND *"First in Grassland Farming"*

WARM WEATHER AHEAD!

Official White Shirt

White broadcloth dress shirt with emblem. No names on dress shirt. Ideal for wear with official jackets. Sizes 12 to 17. Give sleeve length.

Item 202 ..... each $2.85

Official Neckties

Made of wool and rayon, wrinkle-resistant, in gold with blue FFA, or blue with gold FFA.

Item 400, blue tie $1.00
Item 401, gold tie $1.00

Official Baseball Cap

Blue with gold letters, made from 100% wool felt. Sizes: 6⅝ to 7½.

Item BC $1.25

Please send check or money order

Future Farmers Supply Service
P. O. Box 1180
Alexandria, Virginia

Please send me the following:

Item	Description	Size	Price

Name desired _____ Amount enclosed _____

Send to: (print clearly)

Name _____
Address _____
City _____ State _____

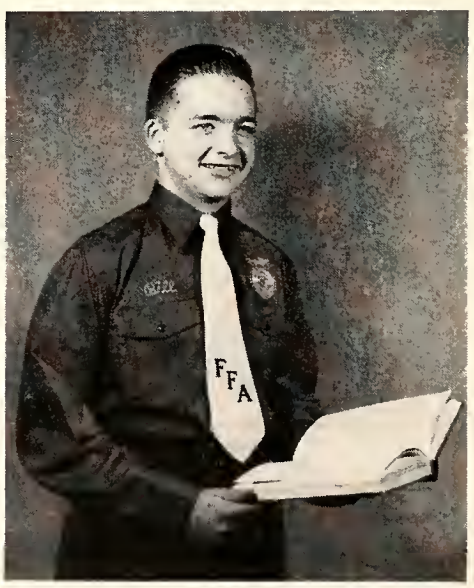
Immediate Delivery!

When you order from the Future Farmers Supply Service, you can be sure you're getting the finest quality available at the lowest price. Wear official FFA clothes, and let folks know you belong to the largest farm boy organization in the world!

Official Sport Shirt

Comfortable, top quality sport shirt made of blue oxford cloth. It has convertible collar and can be worn with or without a tie. Sizes (neck): Small (14-14½), Medium (15-15½), Large (16-16½).

Item 200, long sleeves ..... each $3.25
Item 201, short sleeves ..... each $2.75
Name, extra ..... $ .15



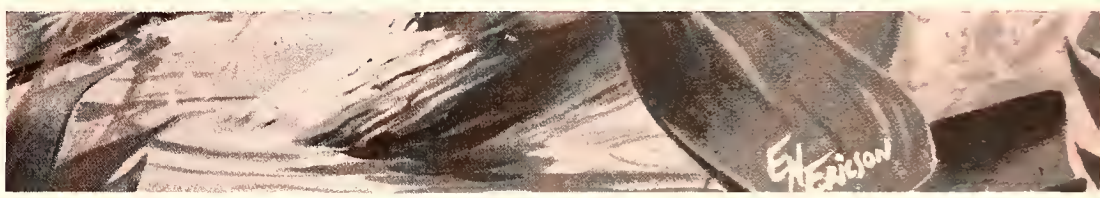
Official Blue Shirt

Dark blue poplin material with convertible collar, and your first name. initials, or nickname, if desired, and emblem on the front. Sizes 12 to 17. Give sleeve length.

Item 203 ..... each $2.85
Name, extra ..... $ .15

The Fighting Trout

y B. W. Dalrymple



He was floating away downstream, still on his side. I dropped the rod . . . and plunged headfirst, grabbing with both hands.

THE STREAM where this old settler of a trout hung out is in northern Michigan. I don't want to locate and name it exactly. Let's just call it the Tamarack River.

You turn off a main U.S. highway and drive five miles on good gravel. There you cross the Tamarack, where it flows through a thick green swamp. Hundreds of tourists, and many natives, too, fish the upstream stretch of the Tamarack at this point every summer.

The stretch is beautiful trout water, its banks still wild, its course meandering, hip-deep, and swift. There are ridges of underwater weeds slicked down by the current, and sunken logs crisscross the channel everywhere. It is a steady producer of eight- and ten-inchers, with an occasional "big fish" of possibly a pound and a half. These fish are mostly small rainbows.

Like every angler who ever fished a trout stream, I was satisfied to take pan-sized fish in the Tamarack for the simple reason that the water looked so inviting, so definitely "big trout." There was always a chance, I'd tell myself, that somewhere up there a real old granddaddy was taking his ease, too smart to be fooled by anyone all these years. And there was always the chance that I'd be the one to fool him.

That's what I was always thinking whenever I fished this stretch of the Tamarack. And then one summer day it happened. But not at all like I had imagined.

(Continued on next page)

the *CAT* with *3 LIVES*

BURIED under 30 feet of earth . . . covered with seven feet of sea water . . . still running like new—so reads the report of a seemingly indestructible Caterpillar D6 tractor on the island of Walcheren, Holland.

The story of the crawler tractor that twice was buried and twice came back to live again had its beginning back in World War II days. At this time the tractor was manufactured and sold to the U. S. Army. In 1945, the tractor went into Holland with the landing on the island of Walcheren when the Allied Armies were liberating the Netherlands from the Axis Powers' iron foot.

The island was then in pretty bad shape. Its sea dykes had been bombed to flood out the Germans, and sea water covered much of the land. As soon as Holland was free, however, the Allied countries set about rebuilding the dykes to reclaim the flooded areas. The tractor was enlisted in this task.

Then, as the sea walls were being thrown up, a minor breakdown occurred to the tractor. In the haste to repair the dykes, there was no time to remove the tractor, and it was left where it had stopped and covered with 30 feet of dyke by hurried workmen.

The incident did not go unnoticed, however. Mr. Nieuwenhuyse, a Dutch farmer working on the dykes, viewed the burial with astonishment. Later, when the island had returned somewhat to normal, he secured permission from the military authorities to buy and dig up the tractor.

Once the excavating was finished, he began dismounting, cleaning, and reassembling the tractor. And, in less than a week's time, he had it running again.

Then came the storms of 1953 and with them the flood waters that tore huge gaping holes in Holland's sea wall and rolled over the lowlands. Again the tractor was buried—this time under seven feet of corrosive sea water. After the sea had receded and the land had dried sufficiently, Nieuwenhuyse again reclaimed his tractor. Again it had to be torn down, cleaned, and reassembled. It was reported that the tractor had withstood the angry waters remarkably well and soon was back at work, helping construct and maintain Holland's defenses against the sea.

(Continued from preceding page)

I had gone up the Tamarack during mid-afternoon, fishing carefully. It was a perfect day, and trout were feeding. I was picking my steps gingerly, for in many a spot on the Tamarack you can get over your boots in a hurry. I was catching some nice fat eight- and ten-inch rainbows, with an occasional just-legal brookie thrown in. But subconsciously I was fishing for an "imagined" trout, like always.

I worked upstream about half a mile. Toward dusk I had maybe a half a limit of fish. The bank here is too thick to walk, and the bottom so tricky I didn't want to go back down to the car in pitch dark. Besides, though it was summer, it was cold. It was one of those north-Michigan summers that, as the natives say, came on a Thursday.

I hooked the small dry fly—Hare's Ear pattern—into the keeper ring on my rod. The 3x leader tippet felt rough. I made a mental note to be sure to replace it before using that leader again. It was so worn it surely wouldn't hold one more decent fish.

I was down to within no more than two city blocks of the road and my car. The stream there, so close to the road, isn't much. No logs, no underwater weeds, not especially deep, and certainly a whole lot less than "fishy looking." Besides, every third car that passes spews out at least three rank dubs who froth up that close-in bit of water, muddy it up, and manage to keep it skinned clean of every fish down even to the ones they have to stretch hard to get over the seven-inch mark on their rulers.

There is a bend at the upstream end and I was moving down on the inside because the outside curve, naturally, was fairly deep. It was also muddy. Soft mud you'd sink deep into, like in most tamarack swamps. And there was a brush snag lying in that muddy hole. Just a small snag, but I didn't want to blunder into it and rip my waders.

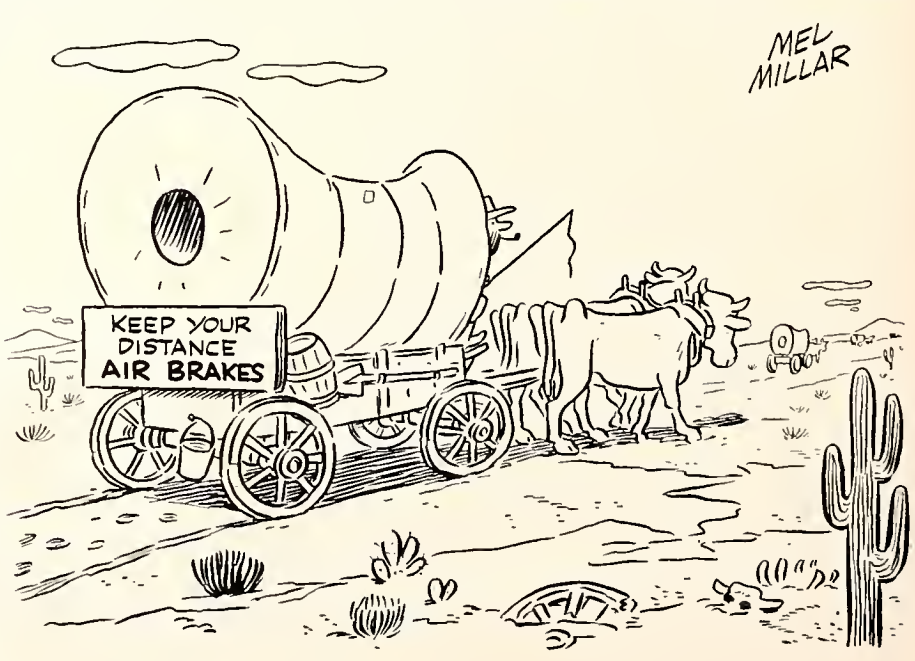
Sometime right along there I knocked the fly loose from the keeper ring. By this time it was getting quite dark. I didn't want to stop to fumble around for the leader. And, since I was moving downstream anyway, holding the rod in my left hand, I marched right along, simply flicking the fly absently off to my left, over the water, every few seconds to keep it out of the way.

I didn't hear any tremendous slash at my fly. All I heard was the splashing of my own big feet. But on one of those left-handed flicks, that nine feet of worn 3x leader with the tiny and bedraggled Hare's Ear dry fly on the end of it had lit somewhere over near the small brush snag sticking out of the mud hole. And when I absently started to pick it up for the next flick—it didn't pick.

Obviously, I was fast to the very snag I had been trying to avoid. "Darn the luck," I said, hurrying, yanking back on the rod awkwardly with my left hand to free the hook as I walked on. I didn't much care if I lost the fly. I was shivering too badly. And of all things, I still didn't realize that the "snag" on which I was caught there in the dark had changed position. Swiftly.

And at that instant the rod all but left my hand, the reel let out a frightened, then pleading, yell for help, and I all but dropped my teeth. I was scrambling, trying to get the rod into my right hand, trying to get hold of the line with my left. My shivers were doubled now, from excitement. My scalp was suddenly prickly.

Then somewhere down below me in the semi-darkness a great ghost-like form came shooting up out of the water



with a noise like a dynamite cap. I could see it was a fish, all right, and not an otter, a crazy thought that had suddenly whipped through my mind. And I knew it was a monster rainbow or else I wouldn't have been able to see the silver of it in the thick dusk.

I still couldn't believe it. Of all the unlikely places for a fish to be. No trout angler in his right mind would bother to so much as drop a fly in here. And probably a hundred fishermen had already splashed right through that hole this summer. But here I was, fast to one awful demon lunker of a rainbow.

I managed to snap out of my confusion. I thought triumphantly: there *was* an old settler in the Tamarack, just as I always imagined. And then I remembered that tiny fly, and that leader much too small for a fish of this size in such cramped waters. Not to mention the worn tippet. And the light rod. How I wanted that fish now! The more because I knew, with a sick feeling in my stomach, that I could never, never land him.

I went to work then, as deftly as I knew how. I gave him line, I eased the tension. He came up again. The splash he made! Tremendous! He raced upstream right at me. He got by. I reeled in line and worked him against the current with light pressure. He leaped again, came charging down, actually smacking my boot as he flashed past in the crowded channel. I followed him. Carefully, slowly. The leader held. I followed him and I worked cautiously. I was breathing hard and trembling. But I knew one thing: I was wearing him out!

I'm not sure how long it took, but in the darkness it was a long and mighty, groping and straining, nerve-wracking battle. I had him on his side, and I led him up before me. I held the rod far back, and I bent as low as I could to the water, trying to see him, trying to make sure with the net. I had him half into the net and he slipped out. How much longer could that frayed little leader hold!

I bent again, down, down, carefully, my rod arm shaking from the strain. Forward, reaching the net down and under with breathless care, rod way behind me now. I could see his immense outline there on the surface in the small after-dark glow from the evening sky. He was mine, now, this old settler. I don't think I've ever had a greater thrill in my life. In years no fish like that had come out of the Tamarack. What a tale to tell!

The tense rod suddenly jerked backward a bit. The spring came out of it. I didn't realize, in my intentness, what had happened. The trout was floating away downstream, still on his side. There was no pull on the rod or line.

(Continued on next page)

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(Continued from preceding page)

I was bending down there foolishly, squinting into the dark, reaching forward a net, and struck dumb and immobile. This just couldn't be!

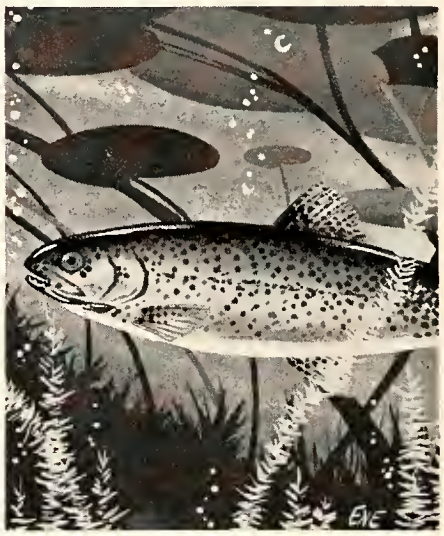
I dropped the rod. I dropped the net. I plunged headfirst, grabbing with both hands. My fingers closed over the sides of that monster floating away exhausted in the dimness. He came alive like a hunk of spring steel with a thousand volts shot througt it. Zip. That was all. He was gone. I straightened up, soaked, trembling, panting.

Slowly I turned back, feeling the icy water run down inside my waders. I clawed around in the water until I retrieved my rod. The net, luckily, had been fastened to my belt. I ran my fingers down the leader. The little Hare's Ear was still there. The too-small hook had simply pulled out at the last instant.

All the way home I drove slowly, trying to make myself realize this was true, that I had actually lost that rainbow. I kept wondering if I had dreamed hooking him in the first place. If anybody ever felt that a wild fish, property of the state, belonged to him personally from then on, I felt that way about this monster rainbow.

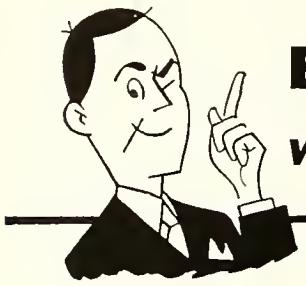
And where do you suppose I fished the next day? Foolish question! And the day after. And the day after that. The after-dark loss had taken place in June. By late July I was still turning back every day or so to the Tamarack, and visions and high excitement traveled with me. I tried every trick I knew. I made up little games. I would crash the brush, walking around the mudhole, planning to fish it on the way back at dusk, planning to recreate, as far as possible, the exact conditions under which I had hooked the slab-sided old battler previously.

Then one early afternoon I said, "The heck with it. I'll get right in and wade straight upstream from the bridge, just as if I didn't know that old fellow hung out there by the snag." Of course the idea had been knawing away at me for weeks that perhaps he had only been passing through, and really wasn't there by the snag at all, now. Yet, on the other hand, I didn't let myself really believe that. I fished that stretch of the Tamarack week after week, never saying a word to anyone about the fish. Some day, somehow, I would snag him and lick him.



And so I waded right up to the snag in broad daylight, not trying especially to be quiet or crafty. I cast the fly just as I'd cast it to any ordinary trout, not even using an especially heavy leader. And, naturally, the old settler rose up out of the mudhole beneath the snag that July afternoon, just as if he'd been waiting all this time for a close look at his new owner. But he made only the tiniest dimple on the surface as he pulled the fly down and rolled with it. And for that reason I lifted the rod lightly, trying not to let myself believe this was anything more than a pesky, over-sized chub.

The hook sank home. The fish came out, and out, and out, until there seemed to be a full yard of him arcing magnificently above the explosion of water. He drove himself ahead across the rippled surface, his great tail pumping. He fell like an anchor tossed overboard from a boat. And he was gone. Leader



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(Continued from preceding page)

snapped clean. In three seconds I had had him, and lost him again!

I waded to the bank and sat down, dangling my legs in the water. I sat there trying to get the shakes out of my hands. Finally I tore down my tackle and went home. I'd never fish the Tamarack again, so help me.

But by late August I had, of course, all but worn a new channel on that stretch of river. I knew now, definitely, that the fish would be there all summer. He had picked that crazy place to live, and he liked it for his own unfathomable reasons. He had stayed there for weeks, and there was no reason to think he had left.

It was August 27 that I had my last run-in with him. And I knew then, when I had him plunging, slashing, and sky-rocketing at the end of my line, that I wasn't sure what it was I wanted. I wanted desperately to land that fish. And yet somehow I wanted just as desperately for him to win his freedom once more.

There wasn't anything unorthodox or spectacular about the way I had hung him. I had on a sturdy leader and a good sized streamer. I came downstream in late afternoon after a whole day of fishing, drifted the streamer into the hole, twitched it once, and he was on. The battle, to be sure, was something indescribable for thrills. He leaped, he raced upstream, downstream, he dogged on bottom. He came in to the net only to tear away on a long run again time after time. And at last, when my rod wrist was all but ready to give out, he turned on his side and dropped into the net bag just as neatly and as simply as they do in the movies.

I got out on the bank among the thick alders and tamaracks, and I laid him out on the cool, moist grass. I looked upon him now with mixed emotions. Here was beauty of a kind that few but trout fishermen ever see. Fabulous beauty, fabulous strength and craftiness and cunning. But licked. Done in. His red gills rose and fell, and my gaze ran down the length of him, following the wide magenta strip daubed against the flashing silver, the immaculate cleanness of his lines, the perfect, deft touch with which the black spots had been so artistically assembled by his Creator upon his back and head.

Half of my mind yearned to slip him back into the water. For here, in this great trout, was my summer. Yet the other half of my consciousness stubbornly clung to my deep desire to *have* this symbol of my summer to keep, to carry proudly home with me.

I got up then, and unlimbered my camera. I knew what I was going to do. I'd take a picture of him. Just one, quickly. And then I'd set him free. As I snapped the shutter, a tremor ran down the length of that shining pink and silver study in perfect functional design. I closed the camera swiftly. I lifted the fish carefully. It had fought its valiant heart to a standstill. It was dead.

After a bit, with something more than tenderness, I gathered swamp moss, soaked it in the clear stream, and

(Continued on next page)

"Wait, Mom, you forgot to salt him!"

GOOD EQUIPMENT
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TRUE—that "the quality of the finished job depends on the quality of him who does it." But as all Future Farmers know, successful projects also involve good tools and efficient equipment—including clothes worn for the work!

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The Angora Goat

By Jimmie Sanderlin

Leakey, Texas, Chapter Advisor

TURN MOST of our domesticated animals out in the rugged Hill Country of Texas, and, in a short time, they'd be in poor condition. But turn an Angora goat out there, and he'd be right at home.

This animal not only thrives on the vegetation of such rough, sparse terrain, but he brings in handsome profits while he grazes.

Raising Angoras is becoming a popular, profitable industry in areas like the Texas Hill Country, where 90 percent of America's hardy goats are being raised.

On terrain like this a good registered doe can produce from eight to 12 pounds of fleece and a good registered buck 15 to 25 pounds of fleece a year.

This fleece, called mohair, is composed of tough, strong fibers that can be woven into a good quality fabric used for many purposes from upholstery and carpets to clothing.

Mohair is currently bringing 70 cents per pound for hair from mature goats and $1.15 for hair from kids or young animals. The kid hair, used to add lustre and endurance to certain woolen fabrics, is taken from the first and second shearings. Good quality kid fleece can bring as high as $1.50 per pound on the current market.

Future Farmers in Real County, Texas, are in the Angora business in a big way. Leakey Chapter Future Farmers are fast achieving a reputation for raising these goats. At present, Chapter members own 176 animals.

Charles Nichols, Chapter president, has the largest herd. He has 101 registered Angoras on a ranch he leases and operates near Leakey. Charles and the other ranchers in the area are sold on goats. They have seen them thrive and even earn a profit during a disastrous drought like the one that has gripped the area during the past few years.

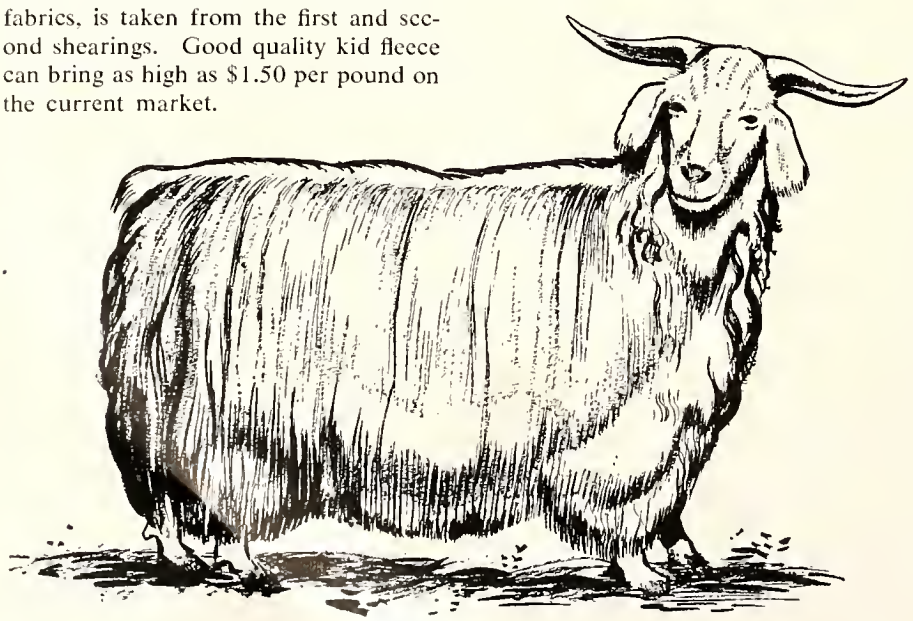
The ranchers have discovered that Angoras will graze on the foliage of several kinds of brush and shrubs which continue to leaf in years of scant rainfall, although they generally eat a wide assortment of grasses when available.

Chapter members of the area study the mohair industry in all phases, including marketing, since prices are influenced greatly by the national and international situation.

Word of Leakey's Angora projects is spreading. Recently a group of agricultural students from India and Pakistan who are studying in Texas visited the Chapter. The students, interested in developing the mohair industry in their native lands, were given a field demonstration and taken on tour to registered Angora ranches.

Chapter members discussed breeding problems with them, demonstrated judging, classing, and typing fleeces, and showed them a finished mohair product from a superior fleece.

Although the Angora goat industry is concentrated in Texas now, Future Farmers in other sections of the country are waking up to the profits that can be made from Angoras. Got any rough, shrubby land? Goats might be just what you need. ◆◆◆



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wrapped the fish in it. He was far too big for my creel. I laid him under the deep shade of the alders and made preparations to get back in the stream again. I wanted to savor this last afternoon, what was left of it, for I had the feeling that I wouldn't be coming back to the Tamarack again this season. There was no reason to, now, I reflected with a feeling of depression.

I was just about ready to get in when another angler came wading up from the bridge. He was, I judged, crowding sixty, and he laid down his fly like a master. When he got closer I could see his gray hair under the edge of his cap, and the dark, quiet eyes with their pleasantness and their gentleness which is so often the mark of the genuine gentleman at this game.

"How is it?" he asked when he drew even with me, and he smiled and let his fly drift out behind him.

"Well," I said, "it's a fair day. How is it with you?"

"Just started." His glance wandered off toward the mudhole with the snag, at the first bend just ahead. And he smiled a big, broad smile with a secret behind it. "There's a trout up here a bit," he said. "A tremendous, unbelievable trout. He's been daring me all summer long. Had him on a couple of times. Of course, maybe he has moved out. But that kind keep you trying and imagining—don't they?"

"Sure do," I said. My heart was going rather fast.

He smiled again and looked straight at me. "Tell you what," he said, "if I don't land that old mossback today, and you're still on the stream when I come out, I'll tell you exactly where he is. Fair enough?"

"Fair enough," I said, and watched him move on. I hadn't the heart to tell him.

Then he looked back over his shoulder as he made his false casts to dry his fly. "I'm not really sure I want to land that trout," he said. "You know how it is—a trout like that can give a fellow a lot of good fishing. On the other hand, he'd look mighty nice on the wall of my den. It's a dilemma, right enough."

I watched him work the muddy-bottomed pool by the snag intently, and after a while I picked up my bundle of dripping moss and waded back down toward the car. I felt better somehow. That trout had gone a long, long way in his career of usefulness. And it was good, in this greedy day, to know that there still were fishermen like the one who had just gone up around the bend. Fishermen who really appreciate what a wonderful, and thrilling, and useful mechanism a beautiful big trout can be, alive. ◆◆◆

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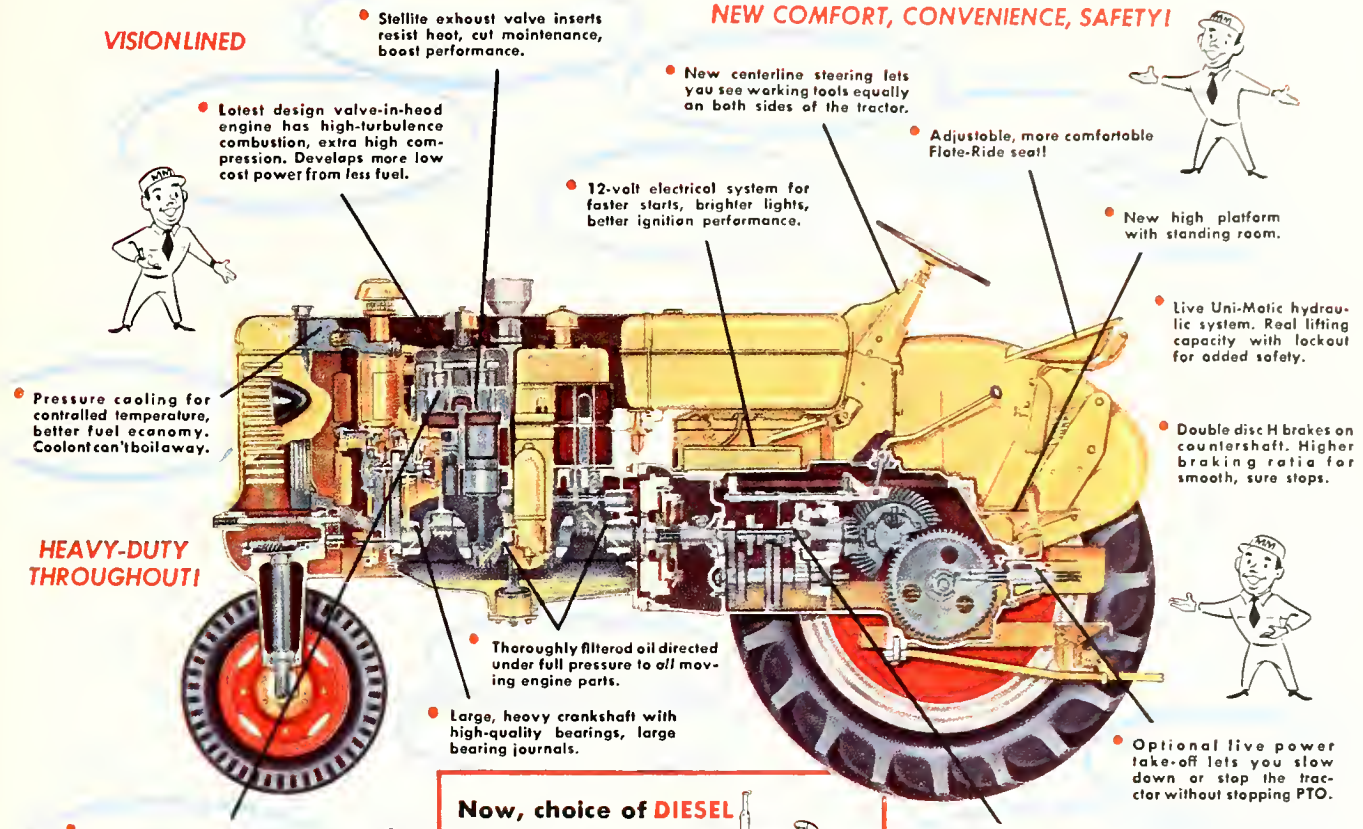
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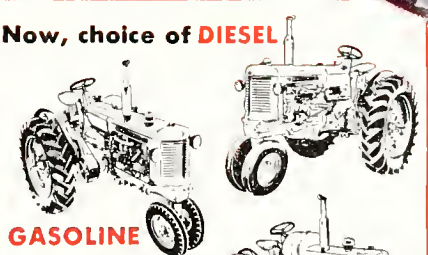

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MINNEAPOLIS-MOLINE MINNEAPOLIS 1, MINNESOTA

Sportrait

ANOTHER MAJOR LEAGUE baseball season will soon be getting under way, and after the initial excitement of opening day has passed, the "armchair managers" will settle back and begin the seasonal ritual of discussion and argument.

A favorite subject for discussion this year will be Enos "Country" Slaughter, the old warhorse of the St. Louis Cardinals, and the last of the immortal "Gas House Gang."

Slaughter will be beginning his 16th season—at the not too tender age of 38. Yet the years have not robbed the old sourdough of his zest for the game and he's still rated by many observers as one of the five best outfielders in the majors today.

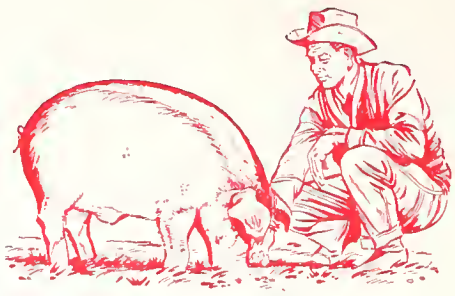
A great competitor, Slaughter was voted to the National League All Star line-up for the tenth time last summer. His manager, Eddie Stanky, has called him "our most valuable player." Quite a tribute when it is recalled that the man who precedes Enos in the Cards batting order is a fellow named Stan Musial, the perennial batting king of the National League.

The record book, oddly enough, would have us believe that Slaughter does not deserve the greatness attributed to him, for his lifetime batting average is only .306. Highly respectable, of course, but not great by any means—and his lifetime fielding average of .984 won't astound anyone.

What, then, is Slaughter's secret? How is it that a ball player who rates as only a little better than average has become as well known, feared, and respected as Enos is today?

The answer is hustle—for Slaughter is one of the hardest working and most conscientious ball players ever to wear a major league uniform. Never in the 19 years of his professional career has he been known to ease up on even the most routine play. He gives every move everything he has, and it's well known that he is carefully avoided by most of his Cardinal teammates during the warm-up. The energy he puts into this routine procedure would wear the normal player to a frazzle before game time.

Sooner or later "Country" won't be able to out-hustle Father Time and will have to give in to the inevitable. This day will be a sad one indeed for the millions who love baseball, and a sadder one yet for "Country" Slaughter.



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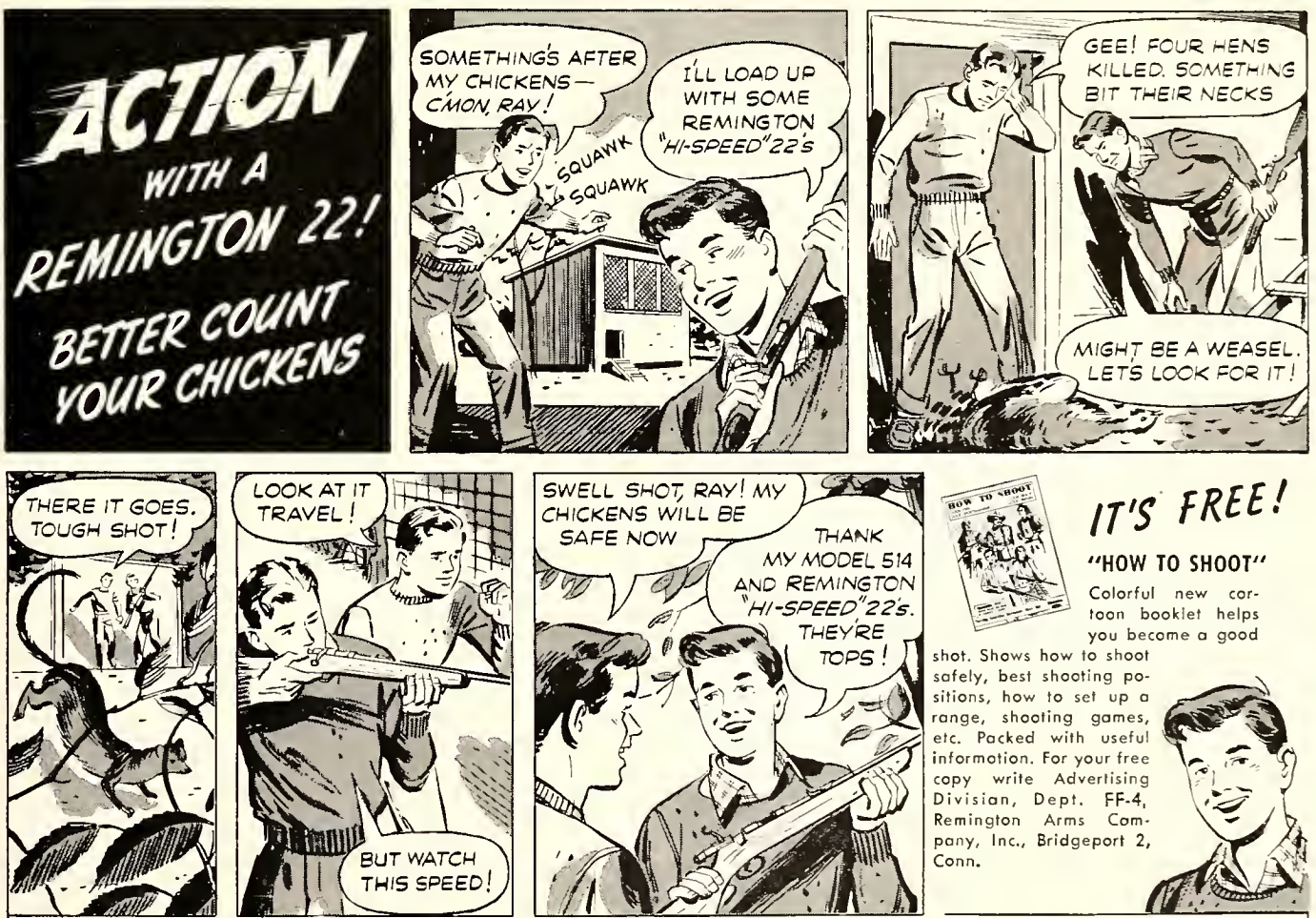
Send your entry, along with any records or photographs you want to include, to FFA Project Contest, Box 1180, Alexandria, Virginia.

Get your entry, signed by your FFA advisor, in the mail by May 28, 1954.

If Gilbert Baca ever hums "Git Along Little Dogie" as he works with his cattle, he is probably not thinking about the last roundup. Gilbert is headin' for college and his cattle are going to pay his way.

Starting with four beef calves, Gilbert has built his herd up to 38 head of cows and heifers during his four years in vo-ag. To do this, Gilbert invested his income from crops and feeding "dogie" lambs in cows and heifers.

Gilbert, who is president of the Belen, New Mexico, FFA Chapter, plans to attend New Mexico A & M College this fall. He says the income from his beef cattle will pay for tuition, room and board, and miscellaneous expenses.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BETTER COUNT YOUR CHICKENS
SOMETHING'S AFTER MY CHICKENS— C'MON, RAY!
SQUAWK SQUAWK
I'LL LOAD UP WITH SOME REMINGTON "HI-SPEED" 22's
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MIGHT BE A WEASEL. LET'S LOOK FOR IT!
THERE IT GOES. TOUGH SHOT!
LOOK AT IT TRAVEL!
BUT WATCH THIS SPEED!
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Chapter Contest Winners

These chapters sent in the best entries for the chapter money-making contest. The prize winners are:

★ *Marshall Chapter, Marshall, Missouri*
★ *Mount Ayr Chapter, Mount Ayr, Iowa*
★ *Lavonia Chapter, Lavonia, Georgia*
★ *Bland Chapter, Bland, Virginia*
★ *Smith County Chapter, Carthage, Tennessee*

Scrapbook winners

Greenville Chapter, Greenville, Georgia
Shippensburg Chapter, Shippensburg, Pennsylvania
Seneca Chapter, Seneca, Illinois
Trumansburg Chapter, Trumansburg, New York
Pathfinder Chapter, Fremont, Nebraska
Marshall Chapter, Marshall, Oklahoma
Bradford Chapter, Bradford, Vermont
Stockbridge Chapter, Stockbridge, Massachusetts
Coldwater Chapter, Philadelphia, Mississippi
Banks Chapter, Banks, Oregon

Outdoor sign winners

Jackson Chapter, Jackson, Minnesota
LaFayette Chapter, LaFayette, New York
Albia Chapter, Albia, Iowa
Winona Chapter, Winona, Minnesota
Mexia Chapter, Mexia, Texas
Bluffton Chapter, Bluffton, Ohio
Omega Chapter, Omega, Georgia
Noxapater Chapter, Noxapater, Mississippi
New Bloomfield Chapter, New Bloomfield, Pa.
Butler Chapter, Princeton, Kentucky

There are so many good money making ideas from these chapters that we have decided to hold up printing them until fall, so you can include them in your chapter's plans for the new school year. Look for them. They'll be in the fall *This Issue's Special.*

CARTOON CONTEST WINNERS

$15 First Prize

"But, Pop, you said to run it into the garage!"

Larry Lobley
Fort Sumner, New Mexico

$10 Second Prize

"So much for the door. Any ideas for a window?"

Larry Cartano
Monticello, Iowa

Looking Ahead

HONEY BUN

Researchers at Kansas Agricultural Experiment Station, after a three-year study, have found that by using honey to replace sugar in baking formulas, commercial bakers can produce better bread and pastries. According to the tests, honey improved the color, flavor, and texture of most bakery products, and increased their ability to hold moisture—thereby helping them to stay fresh longer.

SAP SAVER

This spring many maple syrup producers collected their sugar maple sap in plastic bags rather than the wooden buckets they have traditionally used. Scientists have found that the sun's ultra violet rays penetrate the plastic bags, sterilize the sap, and prevent spoilage.

WIREWORM CONTROL

In a California county, bean yields on 6,600 acres where the soil was treated for wireworms with 20 pounds of 50 percent DDT per acre, averaged 400 pounds per acre more than yields on untreated soil. Chemical soil treatment, developed by the Agricultural Research Service, using DDT, ethylene dibromide, and D-D mixture, means a big saving to growers of truck and other crops. Especially on irrigated land. Savings were estimated by growers to be about $550,000 the first year, and since DDT remains effective in the soil for four years, the treatment of the 6,600 acres will result in a production increase of about $2 million in this one county in a single crop. This amounts to roughly twice the total cost of all the ARS research on wireworms since 1924.

THINGS TO WATCH

HOGS: The number of hogs on farms dropped to 48.2 million head, 11 percent less than a year ago, and *the smallest number since 1938.*

DAIRY: With the support prices of milk and butterfat lowered, and with three percent more milk cows on the farms, the consumption of dairy products should increase and milk production for 1954 should rise above the record level of 1953.

CATTLE: While the number of cattle on farms seems to be leveling off, with only one percent gain in the number on farms in 1953, the large number of cows means another big calf crop this year.

EGGS: Production of eggs appears to be continuing at a record breaking pace, and demand for fresh and frozen eggs has held the price up slightly above that of a year ago.

$5 Third Prize

"And the boys said I couldn't hit the side of a barn!"

Patton Dotson, Jr.
Roanoke, Virginia

★ ★ ★

Honorable Mention

(Each winning an official FFA notebook with his name lettered in gold.)

"Gee Whiz, Boss, when they said 'out front' performance, they weren't kidding!"

Dick Godkin
Neligh, Nebraska

"The garage was this much too short, Pop."

Johnny Tucker
Tecumseh, Oklahoma

"I refuse to answer on the grounds that it may tend to incriminate me."

Sam Galluppi
Sellersville, Pennsylvania

"You were right, Dad. There was still a drop or two of gas left in 'er."

James Peterson
Tamarack, Minnesota

"Well, Paw, just to make a long story short, I won't tell it."

Darrell R. Fitzwater
Champion, Nebraska

"You did say you wanted a door in this end of the shed, didn't you, Dad?"

Roger Kvasnicka
Haddam, Kansas

"Gee, Pop! I just decided to take home repairs next semester."

Marvin Wolfe
Wheeling, West Virginia

"O my Papa, he always understands."

James Wingo
Albany, Ohio

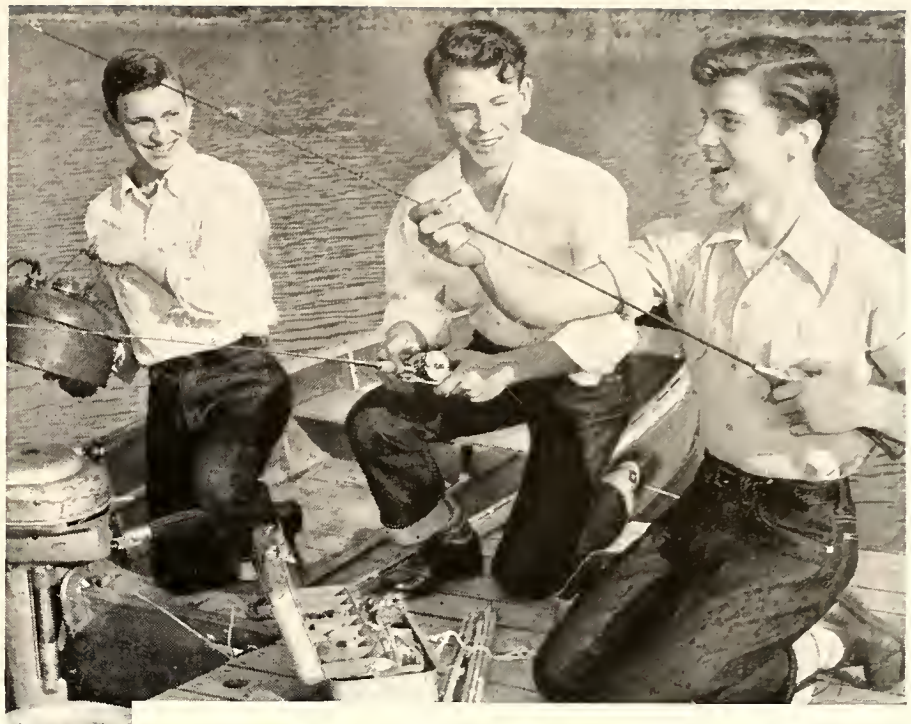
"I got the plow in too, Pa!"

John Ruetten
Cashton, Wisconsin

"How do you stop these things if there isn't a building close by?"

Melvin Jensen
Wausa, Nebraska

The Editors of THE NATIONAL FUTURE FARMER want to thank the more than 1,500 readers who entered this contest. The judge had a very difficult time selecting winners from the many, many exeellent eaptions submitted. Thanks for your interest.



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Trimmest, toughest cowboy jeans that ever came out of the west! Buy 'em your exact size . . . they're *Sanforized* to *keep* their fit.

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Lee

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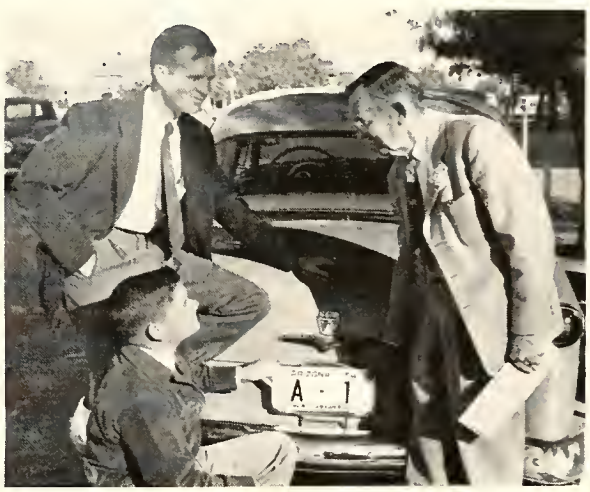
A-1 in Arizona



THE A-1 LICENSE plate in Arizona usually is assigned to the Governor's personal car. This year the A-1 tag is on the Ford of a Future Farmer.

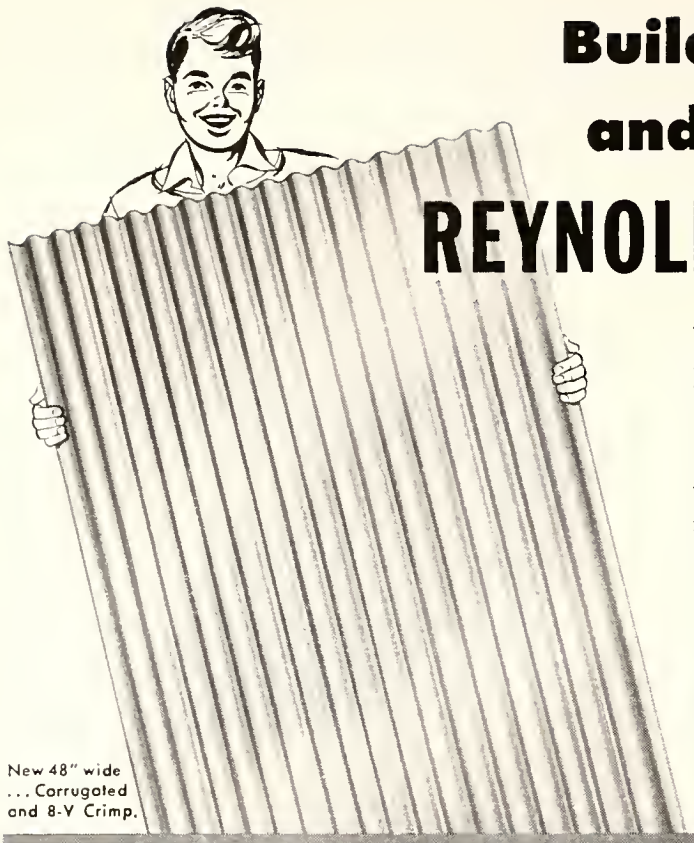
When Governor Pyle turned down the A-1 tag this year, a group of radio and newspaper reporters met to choose an outstanding Maricopa County resident to receive the honor. Gordon Hall was their choice.

Gordon, shown above with County Assessor C. L. Sparks and Orren Beaty, is a 17-year-old Future Farmer from Chandler, Arizona. He graduated from high school last spring and in August he received the State Farmer Degree. He was also Star Farmer of Arizona in 1953. Gordon is now serving as Arizona's FFA State Secretary.

Gordon Hall is an A-1 Future Farmer. His license plate tells that he is also an A-1 eitizen of the Grand Canyon State.

Build for the future and for present profit!

REYNOLDS *Lifetime* ALUMINUM



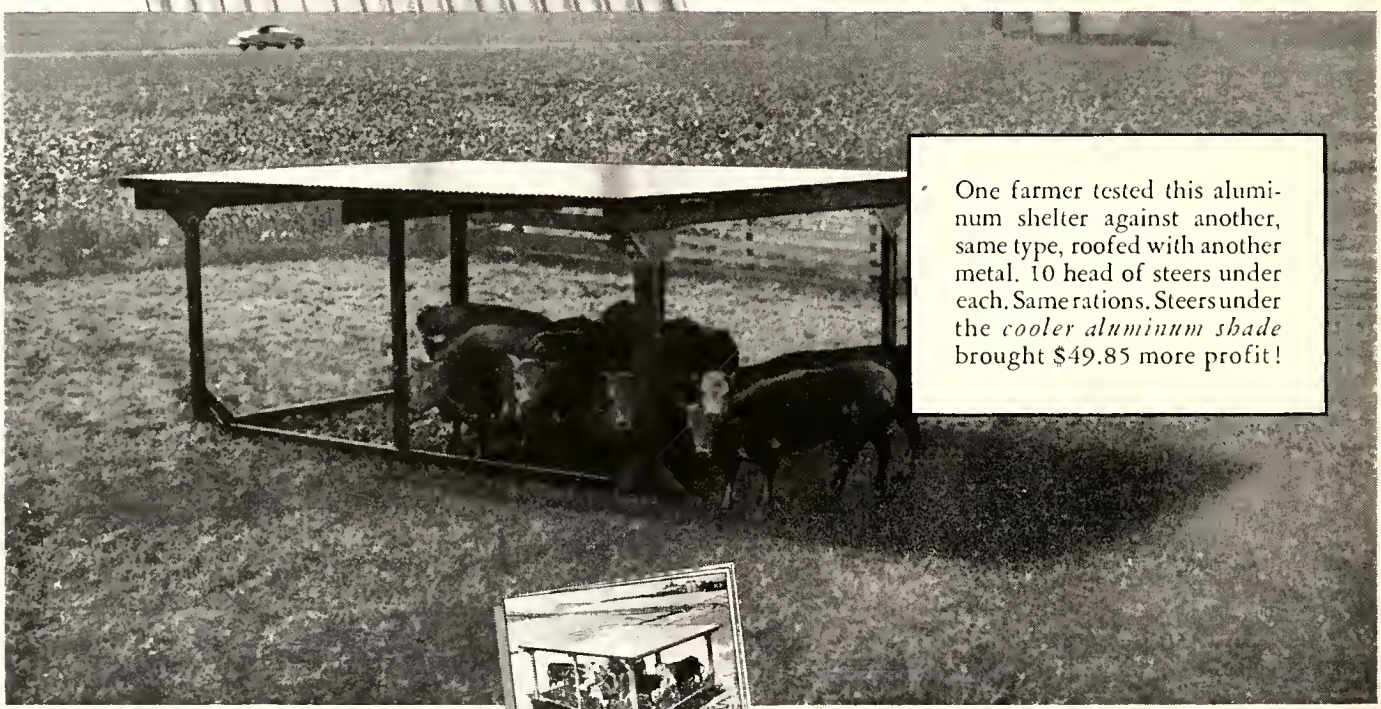
New 48" wide ... Corrugated and 8-V Crimp.

You're building for the long, long future when you build with rustproof Reynolds *Lifetime* Aluminum. Low maintenance . . . no painting!

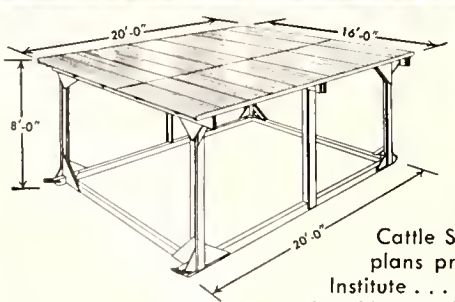
Yet you're also building for bigger *present profits* . . . because heat-reflective aluminum keeps poultry and livestock in production longer. Throws off up to 95% of radiant heat . . . brings summer temperatures down.

And aluminum costs less than ever now . . . with Reynolds new 48-inch wide sheets. They go up faster, save on metal at side laps! See what's new in aluminum at your Reynolds dealer.

Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.



One farmer tested this aluminum shelter against another, same type, roofed with another metal. 10 head of steers under each. Same rations. Steers under the *cooler aluminum shade* brought $49.85 more profit!



You can build this simple Cattle Shelter with the easy-to-use plans prepared by Reynolds Farm Institute . . . only 25¢. Check coupon for this or other plans listed . . . prices include detailed drawings, erection instructions and material lists. Or check for FREE information.

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Reynolds Farm Institute, P. O. Box 1800, Louisville 1, Ky.

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☐ 1,500-bird Pole Laying House (expandible) $1.00
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☐ 14' x 20' Hog or Sheep Shelter .25
☐ 16' x 20' Cattle Shelter .25
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SEE "MISTER PEEPERS," starring Wally Cox, Sundays, NBC-TV Network.

THIS ISSUE'S SPECIAL

PUT YOUR FARM WATER TO WORK

By Lano Barron

WATER from some source is indispensable to all farm production. Without it even the richest soil couldn't grow so much as a blade of grass.

Most of us at one time or another have been out right after a hard rain and watched muddy water running down off a sloping field, cutting more gullies, clogging culverts, and overflowing creeks and ditches. Whether we put it into so many words or not, the thought probably occurred to us: "What a pity to let all that good water go to waste. We certainly could use it in July."

Today, thanks to the soil and water conservation methods that have been developed within the last 25 years, we don't have to let all that water go to waste. We can hold a good part of it back to use in July—when we need it most.

Photos Courtesy SCS

There are two ways of keeping needed surface water on the farm and making it work for you. One is by using vegetative and engineering practices in the field to hold the maximum amount of water in the farm's principal reservoir, the soil.

The other means of holding water on the farm or ranch is by impounding it in ponds or reservoirs, or diverting it from farm streams for irrigation use. Aside from supplying water for livestock and other domestic use on the farm, the principal opportunities for storing water lie in utilizing it for irrigation.

Opportunities for developing individual farm irrigation systems are not limited to the drier western areas, by any means. They are to be found in the

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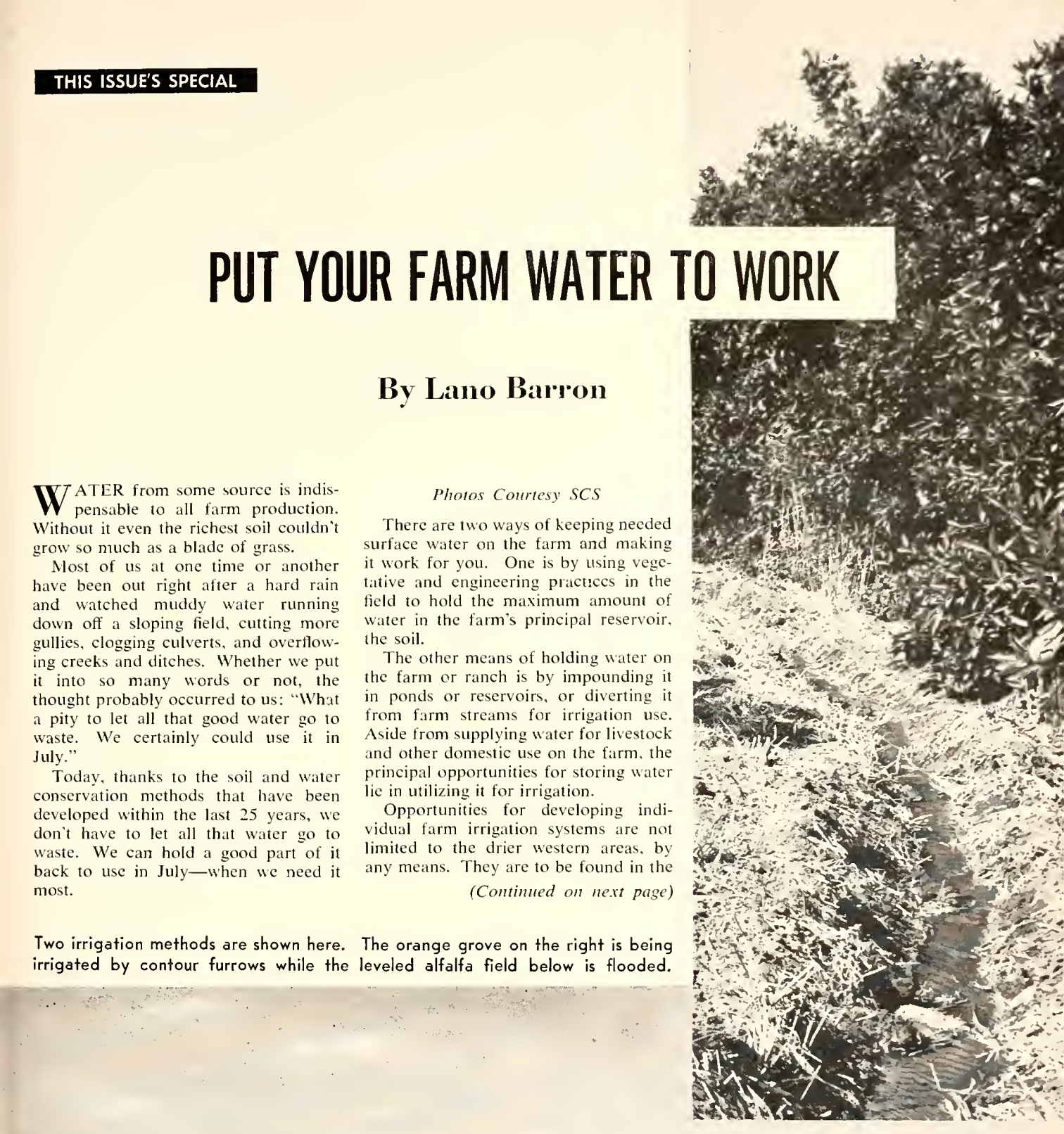

Two irrigation methods are shown here. The orange grove on the right is being irrigated by contour furrows while the leveled alfalfa field below is flooded.

FARM WATER Continued

eastern humid areas of the United States, from Georgia to New England; across the Corn Belt and the Great Plains; and on into even the high-rainfall belt of the Pacific Coast.

In most of the country's farming areas, the quirks of the climate are such that severe droughts hit all too often, and few summer growing periods bring as much rain at the right time as most crops really could use to make the highest yields of best quality. Weather Bureau reports at Columbia, South Carolina, show, for example, that there were six periods of from 20 to 30 days during growing seasons in the ten years between 1935 and 1945 when the total rainfall was only a trace or less. In the drier western areas, of course, irrigation is a practical necessity every year.

The figures show that irrigation farming is expanding steadily in this country, with approximately 24 million acres under irrigation in the West and so-called supplemental irrigation used by eastern farmers on probably around a million acres, not including the major producing rice lands. The Agricultural Research Service of the USDA reports that a survey of water resources in 1950 showed that approximately 88 billion gallons a day are used for irrigating farm crops and pastures. Research and conservation authorities agree that, with our own population climbing at the rate of some two and a half million people a year toward the 200-million mark by 1975, the need will grow for such intensive production, even of some food and other crops now in surplus at times.

Irrigation specialists of the Soil Conservation Service give a number of definite steps you have to go through before you can hope to become a successful irrigation farmer. And by "irrigation farmer," they explain, they mean anyone who is going to irrigate a little or a lot. If he isn't going to work at it, he should drop the whole idea.

FIRST, there is the planning stage. Time spent in planning before going into your conservation irrigation venture will be time well spent. This involves various important questions to be answered the right way.

1 How about my *water supply*—will I have enough water? Too often, specially when building a pond or reservoir, farmers go ahead and buy irrigation equipment, only to find before the first season is over they don't have enough water. Maybe the reservoir is too small or the drainage area is too limited to fill it, or seasonal streamflow similarly is inadequate for sustained diversion for reservoir or ditches. In the South, for example, research studies have shown that average runoff from four acres puts enough water into a pond to irrigate one acre.

2 Check the *water laws* in your state when planning to take water out of a stream. In the East, the riparian doctrine on water rights generally prevails, although there are variations among states. Under the riparian doctrine, the landowner is entitled to have the water flow by or through his land undiminished except through use by upstream owners for domestic purposes. It is essential to check and verify your rights for any diversion or impoundment of water from streams. In the West, water-use rights are based primarily on the doctrine of prior appropriation. That simply means first come first served—providing you can establish you have been putting your water to beneficial use. Here, again, the state water laws vary.

3 Find out if your *land is suitable for irrigation.* Is the soil so sandy that the water would run right on through? Is it such "tight" clay that the water would just stand on the surface and puddle? Or is it of good, deep, friable loam or other structure with the capacity to take and hold water to root feeding depth? "Get a worm's-eye view of your land," the soil conservationists advise, "not a bird's-eye view!"

Are your field slopes sufficiently gentle? That might be, say, not more than ½ to 2 percent, or 6-inch to 2-foot drop in each 100 feet, to permit distributing water through surface spreading systems without water waste, waterlogging, and soil erosion. For sprinkler systems, more sloping land in some cases can be irrigated safely. It is important to nail down this question by getting a dependable soil test or reference to Soil Conservation Service soil survey information, available in most localities.

4 Investigate the *irrigation methods*, or *types of system*, to determine the one which seems best suited to your conditions of water supply, soil, and land topography. Would a sprinkler system be more economical and efficient?—borders for field flooding?—ditches to individual fields and corrugation furrows to crop rows? That well may depend upon your water source; i. e., deep, well-located storage reservoir, conveniently situated stream, etc., as well as upon your soil and slope and the kind of crops you expect to grow—small grain, truck crops, pasture, etc.

Some methods have been shown by experience to be best under differing conditions, and each type should be used in its proper place. Consultation with reliable dealers in irrigation equipment will be helpful. Generally, sprinkler systems have been used more widely in the East, and both sprinkler and ditch

A gated surface pipe irrigates this field of potatoes planted on the contour and a three percent down slope.

This corn field is irrigated with an elevated ditch and a siphon for each row. Water is obtained by pumping.

or flooding systems in the West, as well as in the Mid-West.

5 Figure out carefully what your irrigation set-up is going to *cost* you—and what the *potential returns* from it will be. How much will it cost to build your reservoir, or a system of ditches with necessary headgates and other water-control structures? How much will a sprinkler system, pipes, pump, or other equipment and its installation cost? How much extra labor will operating your irrigation system require? What will that cost?

The irrigation cost-benefit ratio varies, of course, from area to area and from farm to farm. Thus in those parts of the West where irrigation water spells the difference between crops and no crops, higher installation and operating cost—within the bounds of profitable operation—naturally are more justified than in more humid regions where rain can be counted on to make at least some kind of crop. In such humid or subhumid areas, more careful calculation is necessary to determine whether the increased yields and stability of production will repay the costs and return a profit. In any case, it obviously is not good business to jump into an unusual outlay of money without reasonably definite assurance of economical production and a profitable market. Some of the state agricultural colleges have information on irrigation costs and benefits for their areas.

These might vary, for example, from say around $16 an acre, over perhaps a 15-year life-expectancy period for a sprinkler system, to $25 or more, covering depreciation, interest on investment, operating costs, etc. Thus a Georgia Agricultural Extension Service showed a typical example of $94 an acre installation cost for a 20-acre sprinkler system in 1946, and an annual cost of approximately $30 an acre, with two truck crops a year on ten acres. In the same state, farmers' experience and Experiment Station findings showed such yield increases under irrigation as 35 pounds more milk a day from an acre of permanent pasture, 400 pounds an acre increase in tobacco, and tomato yields up from 100 to 200 bushels.

At Lewisburg, Tennessee, cooperative tests by Department of Agriculture dairy scientists and the Tennessee Agriculture Experiment Station showed during the first two years that the irrigated half of a pasture averaged 49 percent more standard cow-days of grazing, 54 percent more milk production, and 38 percent more income above costs than did the non-irrigated plot. That was an increase in net return from irrigated pasture averaging $115.53 an acre.

A study was completed recently by the Farmers Home Administration on 213 irrigation loan borrowers, scattered over the 17 western states, who repaid in full (an average 4-year loan) in fiscal years 1951-53. It showed their average increases in crop production included from 15 to 54 bushels an acre for corn, 14 to 28 bushels for small grains, 39,477 to 49,651 pounds for milk, and 198 to 421 pounds an acre for cotton. Their net worth jumped from $10,650 before borrowing and irrigating to $26,600, and their net farm cash income went up from $2,300 a year to $6,200.

You'll need to have cost and expected benefits information at hand when you come to finance your conservation irrigation lay-out, unless you're fortunate enough to have the cash. In this connection, you may want to look into sources of financial help. There are, of course, your regular private banking facilities. Then there are the federal agricultural credit agencies—the Farm Credit Administration, recently made an independent agency, and the Farmers Home Administration. Under its Water Facilities Program, FHA makes long-time, low-interest loans in the 17 western states to groups of farmers or to individuals for the development, storage, and use of water on family-type farms. This Department of Agriculture agency also provides technical assistance, in cooperation with the SCS, and help in farm and home management.

Meanwhile, through the Agricultural Conservation Program, cost-sharing payments are available to farmers and ranchers for various water conservation measures. These include building of

(Continued on next page)

The even spread of water on this field proves that a good job of leveling had been done. Oats were planted before the water was allowed to enter the field.

A sprinkler system can be economical and efficient—depending on water source, soil, slope and crops grown.

Holes in the bottom of the wooden flume are opened to let water flow into the furrows of this tomato field.

More Hay...

AND WHAT IT COSTS

MEADOW RENOVATION and improvement practices was the experiment carried out by a Wyoming FFA chapter on five quarter-acre plots. This began last spring when the young ranchers, who make up the Pinedale vo-ag class, found their information on meadow renovation was incomplete and inaccurate.

They wanted to find out for themselves which practices would do the most good for meadows in the vicinity—at the least cost per acre. Careful records were kept on each of the five plots; and now the yield has been computed and a brief report can be given here.

Plots I and II, the "control" or check plots, were left in their natural state so the increase of hay on renovated plots could be measured.

Plot III was harrowed only, and the cost of renovation was $2.02.

Plot IV was harrowed, and fertilizer applied at the rate of $17.70 cost per acre. Total cost, including labor, tools, gas, and oil, was $19.91.

Plot V was harrowed, fertilized at the same rate as Plot IV, and seeded at the cost rate of $5.52 per acre. Total cost for Plot V was $27.32.

When the hay was cut in August, the two check plots yielded hay at the rate of 1.8 tons per acre. At $25 a ton, this hay would be worth $45.90 per acre.

The harrowed plot, Plot III, produced 2.02 tons per acre. This amounts to an increase of .12 ton, or 368 lbs. of hay, with an increased value of $4.60 per acre. This means an additional net profit of $2.58 per acre over expenses. The net return for each dollar spent for harrowing was $2.28.

Plot IV, spring toothed and fertilized with 200 lbs. of nitrate and 500 lbs. of phosphate, at a cost per acre of $19.91, put up 2.86 tons, with a total value of $71.50. This was an increase of 1.06 tons of hay valued at $25.60 per acre. This represents an increased net profit of $5.69 per acre. The return for every dollar spent on harrowing and fertilizer was $1.30.

Plot V, which had the same operations as IV, plus reseeding with 6 lbs. bromegrass, 2 lbs. alsike clover, 1 lb. timothy, and 1 lb. reed canary grass, at a total cost of $27.32, produced 3.08 tons of hay with a value of $77 per acre. The increase of 1.28 tons was worth $31.10, and an additional net profit of $3.78 per acre. The return per dollar spent on renovation was $1.13.

To summarize, the greatest return for dollar cost of renovation was on Plot III, which was only spring toothed. The greatest increase of hay for dollar cost was Plot IV. The greatest increase of hay was on Plot V.

During the experiment the plots were visited frequently by the many interested people who had been of assistance: SCS personnel, the county agent, the boys' fathers, neighboring ranchers, and implement dealers. Now Pinedale will be watching the 1954 trial, which is getting underway about now, to test the accuracy of the first findings.

Pinedale (Wyo.) FFA's Loren Martin harvesting the experimental plots.

(Continued from preceding page)

ponds and reservoirs, land leveling, and rehabilitation of existing irrigation systems, *but not new systems*. The payments vary in amount and as to practices covered, by states and counties. Generally, they run in the neighborhood of 50 percent of the cost of earth-moving and/or materials. Your local county committee can advise you.

SECOND, comes the actual construction stage—after you have satisfied yourself with competent counsel and help as to the adequacy of your water supply, the suitability of your land for irrigating, the best system for your needs, and the cost in relation to the foreseeable returns from it.

1 *Build* your reservoir or other *water supply facility*, such as diversion dike or pumping take-out from a stream. Build your storage pond big enough to take care of evaporation and seepage losses in both the storage and in the distribution system, either ditches or mechanical equipment. Irrigation specialists figure that 70 percent efficiency in use of your water generally may be considered good. Remember that when the weather is the driest and the crops need moisture the most, the pond is going to be at its lowest level. An adequate reserve of water storage accordingly is most important if you are going to "cash in" fully on your system. Soil Conservation Service irrigation men aim to design each system so it will handle the full acreage served during the critical period.

2 Pay careful attention to your *land preparation* before putting on water. That includes leveling where needed, and possibly other such treatment as sub-soiling to aid water penetration. It also includes provision for safe and effective drainage of waste water, so as to avoid overflow and water-logging of your own or neighboring land, proportionately reduced yields, and other troubles.

You probably will want to cut installation costs by using as much of your own labor and equipment as possible. You may find it practicable, however, to fall back on a private contractor equipped to handle such earth-moving jobs. If you are a soil conservation district cooperator, you may be able to draw upon district equipment at reasonable rates scheduled for cooperators.

FINALLY, comes the use and management of your new irrigation system. This is important, because it is your money, time, and labor that is invested now. Experiments and experience have shown that good management without irrigation is better in all but the driest

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WISCONSIN ALUMNI RESEARCH FOUNDATION

THIS ISSUE'S SPECIAL

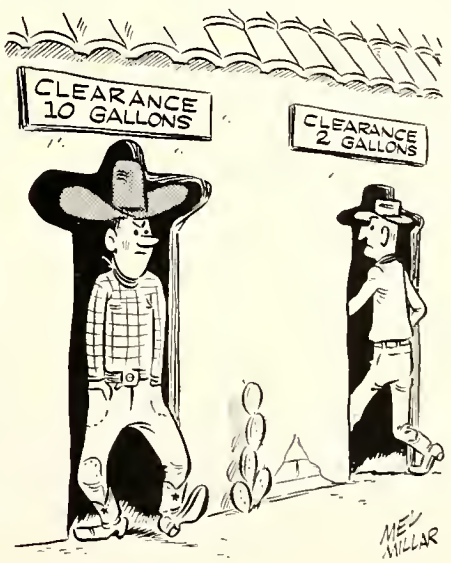
areas than poor management with irrigation.

1 Make up your mind that your *conservation irrigation system* is to be an *integral part of your farm plan and operations*—not just something to turn on once in a while when it gets so dry that crops start to wilt. In the East and Middle West, particularly, the soil conservationists emphasize, you should approach the irrigation problem from the viewpoint that irrigation isn't supplemental to rain, but rather that rain is supplemental to irrigation. True, they say, you can increase yields in dry years by turning the water on only at critical times. Over the long haul, though, you are not beginning to get the most out of your system until you use it to keep the soil moisture up where it should be throughout the time crops, pasture, or orchard need it.

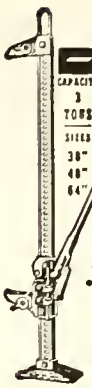
2 Keep tab on the weather and on your soil. A *rain gauge* is essential, in the humid areas, so you will know if rain is putting the same amount of water into the soil that irrigation would. Also, you need some way of keeping a close *check* on the *soil moisture*—to have a dependable answer to the question: "When do I irrigate, and how much?" Some use the "feel test"—squeezing handfuls of soil to see how moist it is. A spade can be used to find moisture depth, but a soil auger is better. And there also are locally adapted soil-testing devices on the market.

3 The *kind of crops* you grow should be based on the type of soil, amount of water you have, your labor and machinery limitations, and your market. A basic tenet of soil conservation is to "use each acre according to its capabilities, and treat each acre according to its needs" for sustained,

(Continued on next page)



JACKALL JACK
— AND FENCE STRETCHER —



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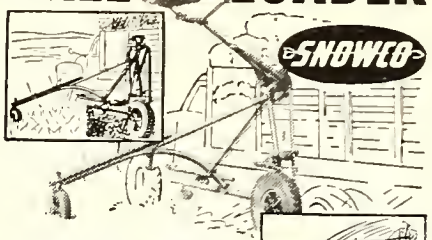

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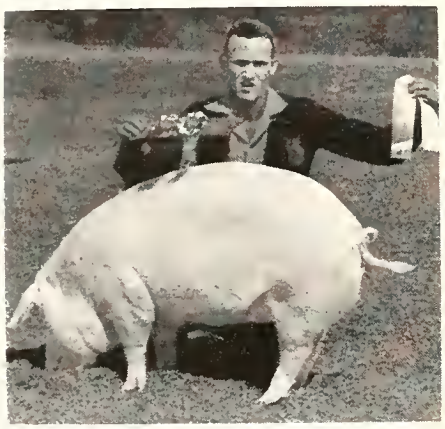
LINKS IN A CHAMPION

Pig Chain

By Sam Reed, Vo-Ag Teacher

Bet your chapter has a pig chain. Most FFA chapters do. Here's an account of how one chapter set up and carried through regulations which insured a successful chain—a chain which brought home Grand Champion honors.

Last April the Dyersburg FFA was selected as one of 15 chapters in West



Billy Parmenter's gilt was the Grand Champion over 30 at the District Fair

Tennessee to receive five gilts and a boar from the Sears Roebuck Foundation. Given a choice of breed, the Chapter decided on Chester Whites because the Duroc breed was already well established among the members.

A few rules were set up, and a committee of three FFA boys diligently checked to see that these were followed. Therein lies the success of this chain.

The rules were:

- To receive a gilt, a member must have a hog lot of a quarter to a half acre—separate from other hogs.
- He must have equipment and feed to care for a sow and litter.
- Parents must allow him to feed according to the recommendations of the committee and chapter advisor.
- He must show his gilt in the County and District fairs.
- The boar must be kept separate from other hogs, and not used for breeding until eight months old.

The committee visited each boy who applied for a gilt or the boar to study his situation. After the selection was made and the pigs were placed on five farms, the committee and advisor visited these members each month during the summer to check on the pigs' progress.

The owners carried out their part of the agreement, and all five were ready to show in the County competition. At this fair the gilts were judged to pick the top two to go to the West Tennessee Fair to compete against the other 14 chapters with Sears Roebuck pigs. After much deliberation, the judge was able to pick two out of the five high quality gilts.

The next, and final, show in the Sears Roebuck Pig Chain was held at the West Tennessee District Fair in Jackson. The Dyersburg Chapter members showed their Chester Whites, now six to eight months of age, in competition with Duroes, Hampshires, and other Chester Whites. And Dyersburg won over all the chapters entered!

Billy Parmenter won Grand Champion Gilt, Robert Riggs was awarded Reserve Grand Champion, and Eugene Hilliard placed his boar third and was awarded the Outstanding Showmanship award in the boar division.

So that's the story of a pig chain that really functions. Credit for this success is due to three factors: following rules, close supervision, and selection of outstanding breeding stock.

But the pig chain doesn't end here. This spring each boy who received a gilt will return two gilts to the Chapter. Five of these gilts will be given to Dyersburg FFA boys under the rules outlined above. The other five gilts will be given to the Negro vo-ag program at Bruce High School, also located in Dyersburg, so the New Farmers can try their luck with Grand Champion stock.

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economical production. A good rule for irrigation farming similarly is to "irrigate in accordance with the needs and capacity of the soil." For instance, sandy soils, because of their low water-holding ability, generally call for more light and frequent irrigations. You can get along with heavier and less frequent irrigations on the heavier clay soils. Crops like sugar beets are heavy water users late into the season; crops like small grain pretty well make their growth early in the season and benefit most from early rains. But each crop, from corn to watermelons, needs water at certain definite times during its growth, and with irrigation you can supply it on schedule.

4 Remember you may have to use even more *fertilizer, lime,* or *soil amendments* under irrigation, because your soil is called on to yield more and hence uses up more of these essentials to crop growth. You can't expect water alone to make your crop or pasture; it simply can't do it. You still have to be a good farmer, using proper rotations, keeping up soil fertility, and all the rest of it.

5 Last but certainly not of least importance, use *sound conservation practices.* These include such conventional measures as contour tillage, using grass and legumes in crop rotations, stubble-mulching, improved irrigation and draining practices, and so on. They will help you to save all the rain and snow water possible when it falls on the land. That is cheaper water, by all odds, than an equal amount drawn from your irrigation system; and it also helps you "stretch" your storage or other irrigation water supply.

Yes, you can put your own farm water to work—in South Carolina or Oregon, Connecticut or Utah. But you're going to have to work at it a bit yourself!

✣ ✣ ✣

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"I cleared 18¢ a bushel more with my BUTLER bins and crop conditioner"

Says Elmer H. Miller, White Pigeon, Michigan

"My three 1,000-bushel Butler bins and crop conditioner paid for themselves the first year . . . and netted me an extra $526!" says Mr. Miller.

"The decision to buy the grain bins and conditioning system is one of the best I've ever made," Mr. Miller explains. "By putting my 1953 wheat crop in Butler bins and storing it right here on the farm, I have received 68 cents a bushel *more* than I would have if I sold at harvest time. Number two white wheat was only $1.58 when I was combining. I got the full loan price of $2.26. Figuring the cost of the complete Butler storage and conditioning installation . . . even allowing a cent a bushel for electricity, I've *cleared* 18 cents a bushel.

"The first wheat I put in tested 15.86% moisture . . . but with the Butler Crop Conditioner moving a steady volume of air through the grain, it was soon down to 13%. I don't have to worry about contamination from dirt or rodent pellets either. My Butler steel bins are weather-tight, bird and rodent-proof to assure season after season of safe, clean storage."

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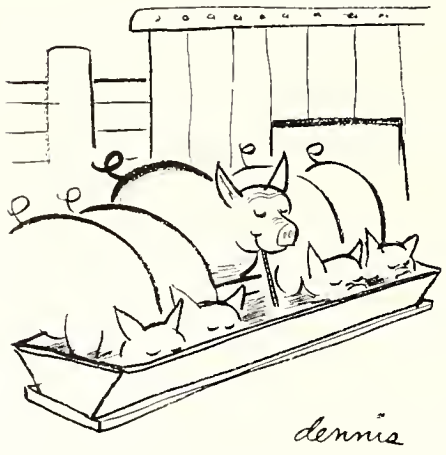
The First One Doesn't Have A Chance!

Joe: *"How did you come to fall in the water?"*

Jim: *"I didn't come to fall in the water. I came to fish."*

Dewayne Tallent
Newby, Oklahoma



A woman motorist was being examined for a driver's license.

Examiner: *"And what is the white line in the middle of the road for?"*

Woman: *"Bicycles!"*

Billy Aldridge
Floyd, Virginia

"Class," said the new teacher, *"I want you all to be so quiet you can hear a pin drop."*

Silence was golden for several moments, then a small bass voice in the back of the room piped up, *"Well, let 'er drop."*

Leonard Porter
Moffit, North Dakota

During an electrical storm, Mother thought her young son would be frightened so she tiptoed into his room to comfort him. The little boy opened his eyes and mumbled, *"What's Daddy doing with the television set now?"*

Lois Miller
Lost City, West Virginia

Joe: *"I sure would hate to be up there with that airplane."*

Moe: *"I sure would hate to be up there without it!"*

Eddie Barnes
Cloverdale, Oregon

At the zoo the teacher pointed to a deer and asked, *"Tommy, what is that animal?"*

"I dunno," said Tommy.

"What does your mama call your papa?" asked the teacher.

"Don't tell me that's a lummox!"

Johnny McKnight
Mantee, Mississippi

Voter: *"I wouldn't vote for you if you were St. Peter!"*

Candidate: *"If I were St. Peter you couldn't vote for me. You wouldn't be in my district!"*

Hollis Gammon
Lafayette, Tennessee

Naval officer shouting into the speaking tube to the engine room: *"Is there a blundering idiot at the end of this tube?"*

"Not at this end, Sir," came the bland reply.

Merle Jones
Columbus, Kansas

Lady: *"How's your little brother?"*

Boy: *"Sick. He hurt himself."*

Lady: *"That's too bad, how did he do it?"*

Boy: *"We were playing who could lean out the window fartherest. He won."*

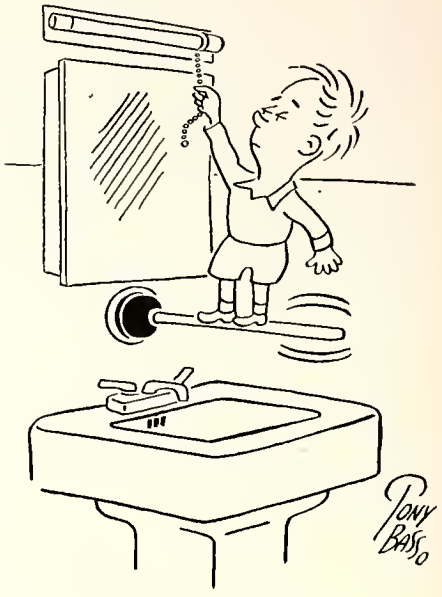
Al Mackey
Chicago, Illinois

"Pick up your feet, Sam, you sound like an elephant."

A woman riding a trolley car was anxious not to pass her stop. She poked the conductor with her umbrella, and asked, *"Is that the First National Bank?"*

"No, Ma'am," replied the conductor, *"That's my stomach!"*

Jimmy Grady
St. Louis, Missouri



Flim: *"Have you heard about the man who sat all night trying to figure where the sun went when it set?"*

Flam: *"No, what happened?"*

Flim: *"It finally dawned on him!"*

Eugene Lesiak
Genoa, Nebraska

He: *"Women can never keep a secret."*

She: *"Yes, they can. I've kept my age a secret since I was 25."*

He: *"But one day you'll let it out."*

She: *"No, if I can keep a secret 16 years, I can keep it always!"*

Erwin Pieper
Nordheim, Texas

Bob: *"That's a funny pair of socks you're wearing — one green and one red."*

Tom: *"Yes, and strangely enough, I have another pair just like them at home!"*

Gerald Yawn
Collins, Mississippi

The National FUTURE FARMER *will pay $1 for each joke published on this page. Jokes should be submitted on post cards. In case of duplication, payment will be made for the first one received. Contributions cannot be acknowledged or returned.*

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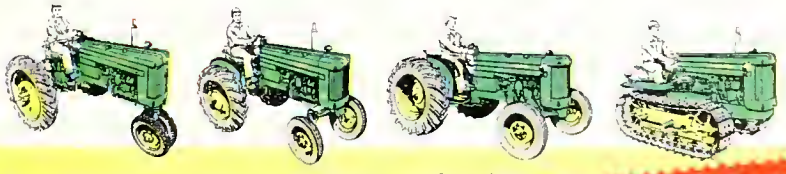

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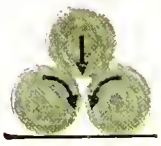
And your hay *keeps* that quality. Only ROLLED bales give hay "thatched-roof" protection. They repel moisture . . . in the field, in outdoor feedlots, or for self-feeding when left on the range.

There's a different feel in handling, too! ROLLED bales won't buckle or break. They're easy to load . . . handy to haul and store. They nest compactly, or can be dropped at random in the haymow with hayfork or elevator.

Your own big-capacity ROTO-BALER lets you bale *fast* . . . when the crop is ready. See your dealer now. Give your hay that new *quality feel*—this year!



They're SELF-LOCKING! Rolled bales handle, haul and stack better! They nest like cigarettes in a pack. Pressure of upper bales keeps lower bales locked securely together. (See diagram)

Ask your dealer about the new ***SOFT-CENTER baler attachment*** on 1954 models. (Also available for previous models). It starts the bale under lower compression; keeps the center soft for better air circulation and curing. It's an added assurance of quality where higher moisture content is a problem.

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